



KTC-90-13

**SUMMARY OF RESULTS OF 1989 FIELD
AND LABORATORY EVALUATIONS OF
PAVEMENT MARKING MATERIALS**

SASHTO REGIONAL TEST FACILITY

prepared by

Kentucky Transportation Center
University of Kentucky

in cooperation with

Kentucky Transportation Cabinet
Commonwealth of Kentucky

Alabama Highway Department
State of Alabama

and

Louisiana Department of Transportation
State of Louisiana

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INTRODUCTION

This report summarizes the results of data collected as part of the field and laboratory evaluations of pavement marking materials for the SASHTO Regional Test Facility. The purpose of the Regional Test Facility (RTF) is to minimize the amount of field and laboratory research testing of specific types of materials. This is accomplished by combining efforts in an organized manner to reduce the monetary and man-hour requirements of both the states and industry. A RTF for the twelve SASHTO states was approved at the 1988 SASHTO convention. The twelve SASHTO states are Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.

The SASHTO Regional Test Facility (SRTF) began operation in November 1988 when informational packets were mailed to all known manufacturers of four types of material. One type of material was classified as striping materials. The manufacturers had until 5:00 p.m. at the end of the first working day in January 1989 to submit a Product Evaluation Form, a check for the testing fee, sample materials, and other pertinent information to the coordinator of the SRTF in order to have their product considered for inclusion in the testing process for that calendar year. A testing fee of \$2,000 per sample was established for the striping materials. This fee covered the cost of performing the required field and laboratory tests and reporting the results.

Different states were selected to perform the tests for the various materials. For the striping materials, Kentucky was selected as the lead state responsible for reporting the results. Alabama was selected as the support state. Identical field installations were placed in Kentucky and Alabama. The laboratory tests were performed by Louisiana. The Transportation Center at the University of Kentucky performed the work in Kentucky for the Kentucky Transportation Cabinet. The Alabama Highway Department conducted the field tests in Alabama while the Louisiana Department of Transportation performed the laboratory tests in Louisiana.

PROCEDURE

The procedure was developed by a task force established by the Standing Committee of the SRTF. The evaluation procedures were the standard for the RTF. Following is a description of the testing procedures used.

SITE LOCATION

Field test decks on both Portland cement concrete (PCC) and bituminous concrete (asphalt) surfaces were evaluated. The decks were selected using the

guidelines of ASTM D-713. Four-lane divided sections were considered desirable with a minimum average daily traffic (ADT) for the outside lane of 5,000. The field site had to be free-rolling with no grades, curves, or intersections or access points near enough to cause excessive braking or turning movements and had to have good drainage. The wear was to be uniform with full exposure to the sun throughout daylight hours. The surfaces had to be representative of the pavements upon which the traffic marking materials would be applied in practice. Originally, a requirement was that the test deck had to have been open to traffic for at least two years, but this requirement was changed to a minimum of one year.

MATERIALS TESTED

A total of 63 materials were originally approved for testing with 61 materials actually placed. When divided into specific categories, 37 materials would be classified as a paint, 11 were thermoplastic, 7 were a nonremovable tape, and 6 were a removable tape. A listing of the materials is given in Table 1. Each material is assigned a number as shown in Table 1. This reference number is used when reporting the results of the evaluations.

INSTALLATION

The test installations were placed in Alabama in May 1989 and were placed in Kentucky in June 1989. In Kentucky, both the asphalt and PCC installations were placed on Interstate 64 near Frankfort. The asphalt installation was near milepoint 52 and had an average daily traffic (ADT) of about 20,000 while the PCC installation was near milepoint 61 and had an ADT of approximately 19,000. In Alabama, the asphalt test section was placed on a four-lane arterial road in Montgomery which had an ADT of about 20,000 while the PCC test section was on Interstate 65 south of Montgomery (with an ADT of about 14,000). The dates and times of the test stripe installations are given in Tables 2 and 3 for Kentucky and Alabama, respectively.

All of the striping materials were installed by the manufacturers. The manufacturers supplied all the necessary installation equipment. The state supervised the installation and provided traffic control. Various types of striping materials were included. Both liquid and preformed marking materials were evaluated. Because of the large number of paints that could be submitted for testing, a maximum number of 25 paint samples per manufacturer was established. The specific quantity limits were three colors (white, lead based yellow, and organic yellow), three binder systems (alkyd and/or chlorinated rubber and water base), three no-track times (60 seconds, 90 seconds, and 3 minutes), and no more than three samples made up of combinations of color, binder system, and no-track time.

Each manufacturer supplied one five gallon container of each type of liquid marking material. The manufacturers were required to supply a two-quart sample of liquid materials and a 20-foot sample of tapes at the test site. These samples were used for laboratory testing. For the paint portion of the study, AASHTO Type 2 moistureproof glass beads were used and were supplied by the states. In specific instances, a request was made to use another glass bead for a thermoplastic marking material. Samples of any type of glass bead used were obtained. Samples of glass beads were obtained from Flint Trading Co., Degussa Corporation, and Cataphote.

With the exception of some of the removable tape lines, the test lines were transverse lines approximately 12 feet in length and 4 inches wide placed in the shoulder lane. The only exceptions were six longitudinal lane lines 10 feet in length which were placed for each removable tape. The transverse lines were placed at 8- to 12- inch centers.

For the liquid materials (including the thermoplastic material), four beaded lines and one unbeaded line were placed for each sample. For the preformed tape, four lines were placed for each sample. For removable tape, six transverse lines and six longitudinal lines were installed for each sample.

Liquid materials were applied at a wet film thickness of 15 plus or minus one mil. Glass beads were to be applied at a rate of six plus or minus 0.5 pound per gallon of paint, unless specifically designated otherwise. Manufacturers were responsible for machine calibration and roofing paper was supplied by the evaluators for calibration purposes. Each manufacturer notified the evaluators when they were ready to commence installation. An unbeaded check stripe was placed on an aluminum panel and weighed for determination of mil thickness. After the mil thickness met the established guidelines, a beaded stripe was placed on the aluminum panel and weighed to check the bead application rate. After the bead application rate met the established guidelines, the test lines were applied. The mil thickness and bead application rate of each liquid sample were recorded (Tables 4 and 5).

For the thermoplastic material, the manufacturer prepared the material and notified the evaluators when they were prepared to install the test lines. No pre-installation checks of thickness or bead application rate were conducted. The minimum mil thickness for thermoplastic material was to be 60 mils. The average mil thicknesses measured for the various installed thermoplastic materials are given in Table 6.

The preformed tapes (both removable and non-removable) were placed by the manufacturers at the locations indicated by the evaluators.

The use of a primer was noted, and a sample was obtained. Primers were used for permanent tapes and thermoplastic material. Samples of primer were obtained from Flint Trading Co., Degussa Corporation, Linear Dynamics, and Cataphote.

The test deck was divided into several sections. Unbeaded liquid materials were placed in the first section followed by unbeaded thermoplastic material. There was one unbeaded line for each material. The beaded liquid material was placed next. Two sets of two lines each were placed for each material resulting in four beaded lines placed for each material. The same procedure was then used for the thermoplastic material. Next, two sets of two lines each were placed for the nonremovable preformed tape. Separating the four transverse lines into two sets of two lines each was done so that all the lines for one manufacturer would not be placed at one location. The removable tapes were then placed. Six transverse and six longitudinal lines were placed for each material. The last portion of the test deck was used for the checking of the no-track times.

No-track tests were conducted for the liquid materials using the no-track time requested by the manufacturer. These tests were conducted after placement of the unbeaded and beaded lines. A vehicle was driven over the test line at the specified time after placement at a speed of approximately 10 mph. The no-track determination was judged at a distance of 50 feet. The results of the no-track tests are given in Table 7. The mil thickness that each line was placed as well as the relative humidity and air temperature at the time of each no-track test are given in Table 7.

The air and pavement temperatures as well as the relative humidity were recorded hourly during times of installation. The application temperature was obtained for the liquid material at the time of the no-track time test. The weather conditions during the test stripe installations are shown in Tables 8 and 9 for Kentucky and Alabama, respectively.

FIELD DATA COLLECTION

Field data collection was initially made within a few days of the original installation and then at monthly intervals for a one-year period such that 12 sets of data were collected. The types of data collected at the field installations in Alabama and Kentucky included subjective ratings of the appearance and durability of all the stripes, reflectivity measurements of each stripe using a Mirolux 12 portable retroreflectometer, and subjective ratings of the removability and discernability of the removable tapes. In Kentucky, data concerning the brightness of each stripe was obtained using a colormeter. A Colorgard II Reflectometer was used for the colormeter data. The subjective ratings were made

with a team of three evaluators for each data collection period with the average reported.

The subjective appearance rating is the complete impression conveyed when the stripe is viewed at a distance of at least 10 feet before any detailed inspection has been made. It includes a comparison of the color of the surface under consideration with the original color, taking into account changes due to such factors as yellowing, bleeding, darkening, fading, dirt collection, and mold growth. This rating was made without preliminary washing or other modification of the surface of the test lines and a rating of 0 to 10 was made with 10 being the highest rating.

The subjective durability rating was obtained by rating both the left and right wheel paths in the transverse line and averaging the ratings. The area covering 9 inches on each side of the mid-point of the wheel path was viewed and the percentage of the stripe remaining (nonexposed substrate) was estimated. Ten percent of this number was the rating assigned. For example, a stripe with no wear would receive a rating of 10 while a stripe with 60 percent of the stripe remaining would receive a rating of a 6.

The Mirolux 12 measurements were taken in the left wheel path and centerline area of each transverse stripe and in the center of each longitudinal stripe. Reference points were marked on the pavement so the data would be collected at the same points each month. Data were taken for both the beaded and unbeaded paint and thermoplastic lines as well as for the various tapes. The Mirolux 12 measurements were reported in units of millicandelas per square foot per footcandle (or millicandelas).

The colormeter data were taken in the left wheel path and center line area of each transverse stripe and in the center of each longitudinal stripe. Data were taken for both the beaded and unbeaded paint and thermoplastic lines as well as for the various tapes. The colormeter data are dimensionless with higher numbers representing a brighter line.

During each of the first six monthly inspections, one lateral and one transverse stripe of each removable tape were removed. After six months, all of the removable tape had been removed. The removability of each line was subjectively rated each month when it was removed using a scale of 0 to 10. A 10 rating would be for a line which was easily removable in one complete section while a 0 rating was for a line which was removable in only very small pieces. The ability to discern on the pavement where the removable tape was removed was subjectively rated for each stripe until the point that a particular stripe was removed could not be discerned. A discernable marking is any marking, stain, or discoloration that can be detected on the pavement surface under any light or

weather condition after line removal. A 10 rating was for a line which left no discernable markings while a 0 rating was for a line which was completely discernable.

Weather information over the evaluation period is given for the Kentucky and Alabama test sites in Table 10. This information is summarized by month and includes the average temperature, total rainfall, and total snowfall. Information concerning the extent of snowplow operation at the Kentucky sites was obtained. It was found that the sites had been snowplowed on about seven days with approximately 15 to 20 passes at the asphalt site and approximately 25 to 30 passes at the PCC site.

LABORATORY EVALUATIONS

The evaluations were divided into four categories based on the material tested. These categories were thermoplastic, solventborne traffic paint, waterborne traffic paint, and traffic striping tape. The tests performed in the evaluation of the thermoplastic included softening point, specific gravity, bond strength, indentation resistance (Type A), flowability, flowability (extended heating), low temperature stress resistance, and bead content and grading. The tests performed in the evaluation of the solventborne traffic paint included pigment content, total solids, no track dry time, viscosity, opacity (contrast ratio), infrared spectra, and X-ray diffraction. The tests performed in the evaluation of the waterborne (acrylic latex polymer) traffic paint included pigment content, total solids, no track dry time, viscosity, heat stability, freeze-thaw stability, water resistance, opacity (contrast ratio), infrared spectra, and X-ray diffraction. A tensile strength test was performed on the traffic striping tape.

The laboratory tests were conducted on either the sample from Kentucky or Alabama. Tests were conducted on all materials except STR-89-31 and STR-89-32. Tests were not conducted on these materials because the standard tests performed were not applicable to the components of these materials as they were submitted.

RESULTS

REFLECTIVITY DATA

The reflectivity data obtained with the Mirolux 12 are presented in Tables 11 and 12 for the asphalt pavement at the Kentucky and Alabama test sites, respectively. Data taken on the PCC pavements are presented in Tables 13 and 14. The data are for all materials except the removable tapes and the unbeaded stripes. For each material, the averages of the data taken for the four transverse lines are given. The average measurements in the left wheelpath and centerline

areas are presented separately. The materials are grouped into several categories based on the type of material and no-track time. There were a couple of difficulties with the reflectivity data collection at the Alabama sites. There was rutting in the wheel paths at the asphalt site which caused problems with sunlight interfering with the data collection. The grooved PCC pavement caused similar problems at the Alabama site.

For the paint and thermoplastic lines, the reflectivity measurements for the unbeaded transverse lines are given in Tables 15 and 16 for the asphalt pavement at the Kentucky and Alabama test sites, respectively. Data taken on the PCC pavements are given in Tables 17 and 18. The measurements in the left wheel path and centerline areas are presented separately.

For the removable tapes, the reflectivity measurements taken on asphalt pavements are presented in Tables 19 and 20 with data on PCC pavements presented in Tables 21 and 22. Data are given for up to six months after installation when all lines were removed. The data for each month represents the stripes remaining that month. The average measurements in the left wheel path and centerline areas of the transverse stripes and the center of the longitudinal stripes are presented separately.

DURABILITY

The durability data for the beaded paint and thermoplastic lines and nonremovable tape lines are given in Tables 23 and 24 for the asphalt pavements and Tables 25 and 26 for the PCC pavements at the Kentucky and Alabama test sites, respectively. For each material, the averages of the ratings for the four transverse lines are given.

Ratings for the unbeaded paint and thermoplastic lines are given in Tables 27 and 28 for asphalt pavements and Tables 29 and 30 for the PCC pavements at the Kentucky and Alabama test sites, respectively. Durability data were not collected for the removable tapes.

APPEARANCE

The appearance data for the beaded paint and thermoplastic lines and nonremovable tape are given in Tables 31 and 32 for the asphalt pavements and Tables 33 and 34 for the PCC pavements at the Kentucky and Alabama test sites, respectively. For each material, the averages of the ratings for the four transverse lines are given.

Ratings for the unbeaded paint and thermoplastic lines are given in Tables 35 and 36 for the asphalt pavements and Tables 37 and 38 for the PCC pavements at

the Kentucky and Alabama test sites, respectively. Appearance data were not collected for the removable tapes.

COLORMETER

Colormeter data were taken only in Kentucky. Colormeter data for the transverse stripes (excluding unbeaded lines and removable tapes) are given in Tables 39 and 40. The data are an average of all transverse stripes for a given material. Separate measurements are given for the wheel path and centerline areas. Data for the unbeaded paint and thermoplastic lines are given in Tables 41 and 42. Separate measurements are given for the wheel path and centerline areas. Colormeter data for the removable stripes are given in Tables 43 and 44. The averages of all remaining stripes are given. Separate averages are given for the transverse and longitudinal removable stripes.

REMOVABILITY

One transverse and one longitudinal removable stripe were removed each month for six months on both pavement types. The removability ratings are presented in Tables 45 and 46 for the asphalt pavements and Tables 47 and 48 for the PCC pavements at the Kentucky and Alabama test sites, respectively. Ratings are from 0 to 10 with higher ratings for material which was easier to remove. The ratings for the transverse and longitudinal stripe removed each month are given with an average calculated for the ratings over the study period. It was found that the ability of the tapes to be removed was related to temperature with the tapes being much harder to remove when the temperature was extremely cold. The low ratings given for all the stripes in Kentucky in December would be related to very cold temperatures.

DISCERNABILITY

The discernability of each removable tape stripe which had been removed was rated each month. The discernability ratings are presented in Tables 49 and 50 for the asphalt pavements and Tables 51 and 52 for the PCC pavements at the Kentucky and Alabama test sites, respectively. The ratings were averaged separately for the transverse and longitudinal lines as a function of the length of time a given stripe had been removed. A 10 rating was for a line which left no discernable markings.

LABORATORY TESTS

A description of the test methods and the results of the laboratory tests are given in Appendix A for thermoplastic material, Appendix B for solventborne traffic paint, Appendix C for waterborne (acrylic latex polymer) traffic paint, and Appendix D for traffic striping tape. The specific test methods used are referenced. The results for each material type are summarized, and the specific results of the tests for each material are listed.

TABLE 1. STRIPING MATERIALS TESTED

COMPANY	SAMPLE NUMBER	TYPE*
Flint Trading Co.	STR-89-1	PREMARK Thermoplastic, Preformed
Baltimore Paint	STR-89-2	Setfast White BP50-24 Paint LF-A (15 M)
	STR-89-3	Setfast Yellow BP-50-25 Paint L-A (15 M)
	STR-89-4	Hotline White BP50-26 Paint LF-A (FD 60)
	STR-89-5	Hotline Yellow BP50-27 Paint L-A (FD 60)
	STR-89-6	Hotline White BP50-28 Paint LF-A (FD 60)
	STR-89-7	Hotline Yellow BP50-29 Paint L-A (FD 60)
	STR-89-8	Hotline White BP50-30 Paint LF-A (FD 60)
	STR-89-9	Hotline Yellow BP50-31 Paint L-A (FD 60)
	STR-89-10	Hotline White BP50-32 Paint LF-A (FD 60)
	STR-89-11	Hotline Yellow BP50-33 Paint L-A (FD 60)
	STR-89-12	Setfast White BP50-34 Paint LF-CRA (3-5 M)
	STR-89-13	Setfast Yellow BP50-35 Paint L-CRA (3-5 M)
	STR-89-14	Hotline Waterbourne White BP50-36 Paint LF-ALP (FD 60)
	STR-89-15	Hotline Waterbourne Yellow BP50-37 Paint L-ALP (FD 60)

TABLE 1. STRIPING MATERIALS TESTED (CONTINUED)

COMPANY	SAMPLE NUMBER	TYPE*
Baltimore Paint	STR-89-16	Hotline Waterbourne White BP50-38 Paint LF-ALP (FD 60)
	STR-89-17	Hotline Waterbourne Yellow BP50-39 Paint L-ALP (FD 60)
	STR-89-18	Hotline Waterbourne Yellow BP50-41 Paint LF-ALP (FD 60)
	STR-89-19	Hotline Waterbourne White BP50-42 Paint LF-ALP (FD 60)
	STR-89-20	Hotline Waterbourne Yellow BP50-43 Paint L-ALP (FD 60)
	STR-89-21	Setfast Polyester White BP50-44 Paint LF-UPR (30 M)
	STR-89-22	Setfast Polyester Yellow BP50-45 Paint L-UPR (30 M)
	STR-89-23	Setfast Polyester White BP50-46 Paint LF-UPR (FD 90)
	STR-89-24	Setfast Polyester Yellow BP50-47 Paint L-UPR (FD 90)
	STR-89-25	Hotline Waterbourne Yellow BP50-49 Paint LF-ALP (FD 60)
	STR-89-26	Hotline Waterbourne Yellow BP50-51 Paint LF-ALP (FD 60)
3M	STR-89-27	Scotch-Lane Tape Construction Grade Series 5161 NR

TABLE 1. STRIPING MATERIALS TESTED (CONTINUED)

COMPANY	SAMPLE NUMBER	TYPE*
3M	STR-89-28	Scotchlane Tape Detour Grade Series 5711 R
	STR-89-29	Scotchlane Tape Detour Grade Series 5710 R
	STR-89-30	Scotchlane Tape Construction Grade Series 5160 NR
Degussa Corporation	STR-89-31	Degaroute 460 White LF Methacrylate (10-15 M)
	STR-89-32	Degaroute 465 White LF Methacrylate (10-15 M)
Linear Dynamics, Inc.	STR-89-34	LW-89-1-W Yellow Thermoplastic L-H
	STR-89-35	LW-89-1-V White Thermoplastic LF-H
	STR-89-36	Prismo Plastix-I Yellow Tape P
	STR-89-37	Prismo Plastix-I White Tape P
	STR-89-38	Prismoline TRT White Tape R
	STR-89-39	Prismoline TRT Yellow Tape R
	STR-89-40	LW-89-1-D Yellow Paint L-A (FD 60)
	STR-89-41	LW-89-1-C White Paint LF-A (FD 60)
	STR-89-42	LW-89-1-B Yellow Paint L-A (FD 60)
	STR-89-43	LW-89-1-A White Paint LF-A (FD 60)

TABLE 1. STRIPING MATERIALS TESTED (CONTINUED)

COMPANY	SAMPLE NUMBER	TYPE*
Linear Dynamics, Inc.	STR-89-44	ACL11Y Yellow Paint L-ALP (FD 90)
	STR-89-45	ACL11W White Paint LF-ALP (FD 90)
	STR-89-46	LW1-89-1-Z Thermoplastic L-A
	STR-89-47	LW-89-1-Y Thermoplastic LF-A
Ennis/Centerline, Inc.	STR-89-48	EN-9013 Yellow Paint LF-ALP (FD 60)
	STR-89-49	EN-9011 Yellow Paint L-ALP (FD 60)
	STR-89-50	EN-9000 White Paint LF-A (FD 60)
	STR-89-51	EN-9010 White Paint LF-ALP (FD 60)
	STR-89-52	EN-9001 Yellow Paint L-A (FD 60)
	STR-89-53	EN-9005 Yellow Paint LF-A (FD 60)
Cataphote	STR-89-54	Catatile Detour Grade White Tape R
	STR-89-55	Catatile White Tape P
	STR-89-56	Catatile Yellow Tape P
	STR-89-57	Catatherm Yellow Thermoplastic L-H (15 M)
	STR-89-58	Catatherm White Thermoplastic LF-H (15 M)
	STR-89-59	Catatherm Yellow Thermoplastic L-A (15 M)

TABLE 1. STRIPING MATERIALS TESTED (CONTINUED)

COMPANY	SAMPLE NUMBER	TYPE*
Cataphote	STR-89-60	Catatherm White Thermoplastic LF-A (15 M)
	STR-89-61	Catatile Detour Grade Yellow Tape R
	STR-89-62	Nico-Dur Tape P

* The following codes were used to describe the type of striping material:

L - Leaded
 LF - Lead Free
 A - Alkyd
 CRA - Chlorinated Rubber Alkyd
 ALP - Acrylic Latex Polymer
 UPR - Unsaturated Polymer Resin
 FD - Fast Dry
 H - Hydrocarbon
 P - Permanent
 R - Removable
 NR - Nonremovable

TABLE 2. TEST STRIPE INSTALLATION INFORMATION (KENTUCKY)

SAMPLE NUMBER	ASPHALT DECK		CONCRETE DECK	
	DATE	TIME	DATE	TIME
STR-89-1	6/8/89	3:20p	6/6/89	2:15p
STR-89-2	6/8/89	1:49p	6/9/89	3:11p
STR-89-3	6/7/89	2:27p	6/9/89	3:35p
STR-89-4	6/7/89	11:15a	6/6/89	11:53a
STR-89-5	6/8/89	10:17a	6/9/89	1:32p
STR-89-6	6/7/89	10:36a	6/6/89	12:55p
STR-89-7	6/8/89	11:00a	6/9/89	2:02p
STR-89-8	6/7/89	12:21p	6/6/89	2:29p
STR-89-9	6/8/89	11:40a	6/9/89	2:30p
STR-89-10	6/8/89	12:55p	6/6/89	3:19p
STR-89-11	6/8/89	12:15p	6/9/89	12:38p
STR-89-12	6/7/89	2:10p	6/9/89	3:23p
STR-89-13	6/7/89	3:03p	6/9/89	3:50p
STR-89-14	6/8/89	10:32a	6/16/89	1:46p
STR-89-15	6/8/89	2:37p	6/16/89	11:02a
STR-89-16	6/8/89	11:20a	6/16/89	2:16p
STR-89-17	6/8/89	2:52p	6/16/89	11:30a
STR-89-18	6/8/89	12:49p	6/16/89	11:52a
STR-89-19	6/8/89	11:46a	6/16/89	2:37p
STR-89-20	6/8/89	3:17p	6/16/89	11:26a
STR-89-21	6/7/89	10:24a	6/6/89	1:07p
STR-89-22	6/7/89	11:35a	6/6/89	2:15p
STR-89-23	6/8/89	12:26p	6/6/89	2:58p
STR-89-24	6/7/89	1:03p	6/6/89	3:41p
STR-89-25	6/8/89	1:35p	6/16/89	9:35a
STR-89-26	6/8/89	2:00p	6/16/89	10:33a
STR-89-27	6/6/89	11:26a	6/6/89	2:18p
STR-89-28	6/6/89	11:48a	6/6/89	2:57p
STR-89-29	6/6/89	12:26p	6/6/89	3:44p
STR-89-30	6/6/89	12:59p	6/6/89	2:46p
STR-89-31	6/6/89	10:30a	*	*
STR-89-32	6/6/89	10:10a	6/6/89	2:30p
STR-89-34	6/22/89	11:50a	6/22/89	1:52p
STR-89-35	6/8/89	2:04p	6/22/89	4:00p
STR-89-36	6/7/89	10:06a	6/7/89	12:21p
STR-89-37	6/7/89	9:57a	6/7/89	12:32p
STR-89-38	6/7/89	10:43a	6/7/89	1:20p
STR-89-39	6/7/89	11:10a	6/7/89	12:55p
STR-89-40	6/8/89	11:23a	6/9/89	1:46p
STR-89-41	6/8/89	10:24a	6/9/89	2:48p
STR-89-42	6/8/89	10:55a	6/9/89	2:14p
STR-89-43	6/8/89	9:55a	6/9/89	3:23p
STR-89-44	6/8/89	12:47p	6/9/89	1:11p
STR-89-45	6/8/89	12:12p	6/9/89	12:34p
STR-89-46	6/22/89	10:45a	6/22/89	2:49p
STR-89-47	6/8/89	2:55p	6/22/89	5:00p
STR-89-48	6/7/89	1:51p	6/6/89	2:50p
STR-89-49	6/8/89	1:10p	6/6/89	2:11p
STR-89-50	6/7/89	10:14a	6/6/89	12:41p
STR-89-51	6/7/89	12:40p	6/6/89	1:43p
STR-89-52	6/8/89	10:55a	6/6/89	11:15a
STR-89-53	6/8/89	11:27a	6/6/89	11:47a
STR-89-54	6/6/89	2:10p	6/7/89	2:42p
STR-89-55	6/6/89	11:13a	6/7/89	2:12p
STR-89-56	6/6/89	11:14a	6/7/89	2:15p
STR-89-57	6/7/89	10:44a	6/7/89	4:30p
STR-89-58	6/6/89	12:30p	6/7/89	1:15p
STR-89-59	6/7/89	9:40a	6/7/89	3:30p
STR-89-60	6/6/89	1:40p	6/7/89	2:17p
STR-89-61	6/8/89	10:00a	6/7/89	3:00p
STR-89-62	6/7/89	11:10a	6/7/89	2:10p

* Not installed.

TABLE 3. TEST STRIPE INSTALLATION INFORMATION (ALABAMA)

SAMPLE NUMBER	ASPHALT DECK		CONCRETE DECK	
	DATE	TIME	DATE	TIME
STR-89-1	5/5/89	8:45a	5/8/89	10:10a
STR-89-2	5/2/89	12:00p	5/10/89	1:28p
STR-89-3	5/2/89	1:22p	5/10/89	2:15p
STR-89-4	5/2/89	2:28p	5/10/89	12:06p
STR-89-5	5/3/89	12:15p	5/9/89	2:55p
STR-89-6	5/3/89	8:33a	5/10/89	12:23a
STR-89-7	5/3/89	1:16p	5/10/89	9:42p
STR-89-8	5/3/89	10:23a	5/10/89	12:40a
STR-89-9	5/3/89	2:02p	5/10/89	10:47p
STR-89-10	5/3/89	10:56a	5/10/89	12:56a
STR-89-11	5/3/89	2:38p	5/10/89	11:15p
STR-89-12	5/2/89	12:35p	5/10/89	1:50p
STR-89-13	5/2/89	12:50p	5/9/89	3:00p
STR-89-14	5/4/89	1:33p	5/8/89	12:02p
STR-89-15	5/4/89	12:43p	5/8/89	2:56p
STR-89-16	5/5/89	9:13a	5/8/89	12:33a
STR-89-17	5/4/89	2:10p	5/8/89	2:05p
STR-89-18	5/5/89	9:35a	5/9/89	9:56a
STR-89-19	5/5/89	11:45a	5/8/89	1:05a
STR-89-20	5/5/89	11:39a	5/8/89	11:56a
STR-89-21	5/3/89	1:27p	5/9/89	1:02p
STR-89-22	5/3/89	1:56p	5/9/89	1:40p
STR-89-23	5/3/89	2:47p	5/9/89	12:18p
STR-89-24	5/4/89	10:28a	5/8/89	2:40a
STR-89-25	5/4/89	10:37a	5/9/89	11:50a
STR-89-26	5/4/89	11:51a	5/9/89	10:50a
STR-89-27	5/2/89	9:20a	5/2/89	2:12a
STR-89-28	5/2/89	10:20a	5/2/89	2:52a
STR-89-29	5/2/89	10:00a	5/2/89	2:39a
STR-89-30	5/2/89	9:10a	5/2/89	2:15a
STR-89-31	5/2/89	11:20a	5/2/89	3:32a
STR-89-32	5/2/89	11:20a	5/2/89	3:22a
STR-89-34	5/8/89	10:05a	5/8/89	2:15a
STR-89-35	5/4/89	12:20p	5/9/89	11:23p
STR-89-36	5/4/89	9:28a	5/3/89	2:38a
STR-89-37	5/4/89	9:33a	5/3/89	1:43a
STR-89-38	5/4/89	10:00a	5/3/89	3:15a
STR-89-39	5/4/89	10:15a	5/3/89	3:30a
STR-89-40	5/2/89	12:17a	5/3/89	12:03a
STR-89-41	5/2/89	10:56a	5/3/89	10:55a
STR-89-42	5/2/89	11:41a	5/3/89	11:48a
STR-89-43	5/2/89	10:12a	5/3/89	10:27a
STR-89-44	5/2/89	2:05p	5/3/89	12:48p
STR-89-45	5/2/89	1:15p	5/3/89	1:27p
STR-89-46	5/5/89	10:10a	5/8/89	3:27a
STR-89-47	5/4/89	1:50p	5/9/89	10:19p
STR-89-48	5/2/89	2:08p	5/3/89	1:38p
STR-89-49	5/2/89	1:36p	5/3/89	1:00p
STR-89-50	5/2/89	10:22a	5/3/89	11:45a
STR-89-51	5/2/89	1:00p	5/3/89	12:15p
STR-89-52	5/2/89	11:03a	5/3/89	10:35a
STR-89-53	5/2/89	11:51a	5/3/89	9:58a
STR-89-54	5/2/89	2:35p	5/3/89	11:00p
STR-89-55	5/2/89	11:53a	5/3/89	10:18a
STR-89-56	5/2/89	11:58a	5/3/89	10:23a
STR-89-57	5/2/89	3:32p	5/4/89	11:49p
STR-89-58	5/2/89	11:00a	5/4/89	3:04a
STR-89-59	5/2/89	2:05p	5/4/89	12:50p
STR-89-60	5/2/89	12:35p	5/4/89	2:07p
STR-89-61	5/2/89	2:55p	5/3/89	11:15p
STR-89-62	5/2/89	12:03p	5/3/89	10:28p

TABLE 4. TRAFFIC PAINT THICKNESS AND BEAD APPLICATION RATE (KENTUCKY)

SAMPLE NUMBER	THICKNESS (MILS)		BEAD APPLICATION (LBS/GAL)	
	ASPHALT	CONCRETE	ASPHALT	CONCRETE
STR-89-2	15.6	15.6	5.7	6.1
STR-89-3	15.4	14.9	5.9	6.0
STR-89-4	15.8	14.5	6.0	6.0
STR-89-5	15.3	15.7	6.5	5.7
STR-89-6	15.6	15.3	5.4	5.9
STR-89-7	14.1	14.7	5.8	6.2
STR-89-8	14.3	15.0	6.0	6.2
STR-89-9	15.0	15.1	6.4	5.5
STR-89-10	15.5	15.0	6.4	5.8
STR-89-11	15.6	14.9	5.8	6.3
STR-89-12	15.6	14.0	6.5	6.2
STR-89-13	14.3	14.7	6.0	5.9
STR-89-14	15.8	14.6	6.4	5.7
STR-89-15	14.2	14.0	6.3	5.6
STR-89-16	14.0	14.5	6.9	6.2
STR-89-17	15.0	14.6	6.1	7.0
STR-89-18	15.5	14.6	6.6	6.3
STR-89-19	15.2	14.2	5.5	6.0
STR-89-20	14.5	14.9	6.4	5.7
STR-89-21	15.2	15.0	17.6	18.1
STR-89-22	15.2	14.3	18.0	17.9
STR-89-23	14.6	15.4	17.4	18.2
STR-89-24	14.2	14.6	17.4	17.6
STR-89-25	15.8	13.9	6.4	6.2
STR-89-26	14.8	14.6	6.5	5.9
STR-89-40	15.0	15.0	6.1	6.6
STR-89-41	14.7	15.9	5.6	5.8
STR-89-42	14.5	14.7	6.2	6.4
STR-89-43	14.0	14.4	6.4	5.7
STR-89-44	16.0	15.1	5.6	6.0
STR-89-45	14.8	14.3	6.4	5.6
STR-89-48	15.4	14.8	5.6	6.0
STR-89-49	15.8	15.8	6.1	5.6
STR-89-50	15.6	15.2	6.6	6.3
STR-89-51	14.2	14.6	6.4	6.3
STR-89-52	14.5	14.7	5.8	5.8
STR-89-53	14.3	15.4	6.0	5.8

TABLE 5. TRAFFIC PAINT THICKNESS AND BEAD APPLICATION RATE (ALABAMA)

SAMPLE NUMBER	THICKNESS (MILS)		BEAD APPLICATION (LBS/GAL)	
	ASPHALT	CONCRETE	ASPHALT	CONCRETE
STR-89-2	15.0	15.0	5.50	6.00
STR-89-3	16.0	15.0	6.00	6.00
STR-89-4	15.0	15.0	6.00	6.00
STR-89-5	14.0	15.0	6.00	6.00
STR-89-6	16.0	15.0	6.00	6.50
STR-89-7	15.0	15.0	6.00	6.00
STR-89-8	15.0	14.0	6.50	6.50
STR-89-9	15.0	15.0	5.50	6.00
STR-89-10	14.0	14.0	6.50	6.00
STR-89-11	15.0	16.0	6.00	6.00
STR-89-12	15.0	16.0	6.00	5.50
STR-89-13	15.0	15.0	6.00	6.50
STR-89-14	15.0	15.0	5.50	6.50
STR-89-15	15.0	14.0	6.50	6.00
STR-89-16	15.0	14.0	6.00	6.00
STR-89-17	15.0	15.0	6.00	6.25
STR-89-18	16.0	14.0	6.00	6.25
STR-89-19	15.0	15.0	5.50	6.25
STR-89-20	15.0	15.0	6.00	6.50
STR-89-21	16.0	15.0	18.00	17.50
STR-89-22	15.0	16.0	18.00	17.00
STR-89-23	16.0	14.0	18.00	18.00
STR-89-24	14.0	15.0	18.00	18.00
STR-89-25	15.0	15.0	6.50	6.50
STR-89-26	16.0	16.0	5.50	6.00
STR-89-40	15.0	15.0	6.00	6.00
STR-89-41	14.0	14.0	6.50	6.00
STR-89-42	14.0	15.0	6.00	6.00
STR-89-43	14.0	15.0	6.50	5.75
STR-89-44	15.0	14.0	6.00	6.00
STR-89-45	15.0	14.0	6.00	6.50
STR-89-48	15.0	15.0	5.50	6.00
STR-89-49	15.0	15.0	5.50	6.50
STR-89-50	14.0	16.0	6.50	6.50
STR-89-51	14.0	14.0	6.00	6.25
STR-89-52	14.0	15.0	5.50	6.00
STR-89-53	14.0	16.0	6.00	6.50

TABLE 6. AVERAGE THERMOPLASTIC THICKNESS (MILS)

SAMPLE NUMBER	KENTUCKY		ALABAMA	
	CONCRETE	ASPHALT	CONCRETE	ASPHALT
STR-89-1	118	99	98	102
STR-89-31	*	109	106	100
STR-89-32	110	100	112	99
STR-89-34	92	99	89	96
STR-89-35	76	61	84	72
STR-89-46	75	101	78	104
STR-89-47	78	59	74	82
STR-89-57	103	109	110	100
STR-89-58	101	83	104	102
STR-89-59	106	118	108	112
STR-89-60	112	117	110	114

* Not installed.

TABLE 7. RESULTS OF NO-TRACK TESTS

SAMPLE NUMBER		RESULTS*				THICKNESS						RELATIVE HUMIDITY						AIR TEMPERATURE					
		KY		AL		KY		AL		KY		AL		KY		AL		KY		AL			
		POC	ASPH.	POC	ASPH.	POC	ASPH.	POC	ASPH.	POC	ASPH.	POC	ASPH.	POC	ASPH.	POC	ASPH.	POC	ASPH.	POC	ASPH.		
STR-89-4		NT	NT	NT	NT	14.5	15.8	15.0	15.0	15.0	76	82	78	80	49	42	51	53					
STR-89-5		NT	NT	NT	NT	15.7	15.3	15.0	14.0	14.0	80	80	84	78	58	52	64	50					
STR-89-6		T	T	NT	NT	15.3	15.6	15.0	16.0	16.0	77	78	78	63	50	49	52	66					
STR-89-7		NT	T	T	T	14.7	14.1	15.0	15.0	15.0	81	81	72	77	58	52	70	49					
STR-89-8		NT	NT	NT	NT	15.0	14.3	14.0	15.0	15.0	76	83	77	69	50	33	56	53					
STR-89-9		NT	NT	NT	NT	15.1	15.0	15.0	15.0	15.0	82	82	76	78	59	52	68	42					
STR-89-10		NT	T	NT	NT	15.0	15.5	14.0	14.0	14.0	77	81	77	71	50	52	56	51					
STR-89-11		NT	T	T	T	14.9	15.6	16.0	15.0	15.0	79	82	76	76	58	52	68	56					
STR-89-14		NT	NT	NT	NT	14.6	15.8	15.0	15.0	15.0	67	81	84	81	72	52	40	46					
STR-89-15		NT	NT	NT	NT	14.0	14.2	14.0	15.0	15.0	67	84	84	81	65	52	42	46					
STR-89-16		NT	NT	NT	NT	14.5	14.0	14.0	15.0	15.0	67	81	84	71	72	52	43	86					
STR-89-17		NT	NT	NT	NT	14.6	15.0	15.0	15.0	15.0	67	84	84	81	68	52	42	46					
STR-89-18		NT	T	NT	NT	14.6	15.5	14.0	16.0	16.0	67	81	75	74	70	52	79	80					
STR-89-19		NT	NT	NT	NT	14.2	15.2	15.0	15.0	15.0	67	82	84	82	72	52	45	62					
STR-89-20		NT	NT	NT	NT	14.9	14.5	15.0	15.0	15.0	67	84	84	82	68	52	40	62					
STR-89-23		T	NT	NT	NT	15.4	14.6	14.0	16.0	16.0	77	82	80	76	50	52	69	56					
STR-89-24		NT	NT	NT	NT	14.6	14.2	15.0	14.0	14.0	77	84	84	76	50	33	42	47					
STR-89-25		NT	T	NT	NT	13.9	15.8	15.0	15.0	15.0	64	81	80	76	82	52	69	47					
STR-89-26		T	T	NT	NT	14.6	14.8	16.0	16.0	16.0	66	81	78	82	73	52	74	46					
STR-89-40		T	T	NT	NT	15.0	15.0	15.0	15.0	15.0	81	81	78	79	58	52	50	57					
STR-89-41		NT	NT	NT	NT	15.9	14.7	14.0	14.0	14.0	82	81	71	76	59	52	51	56					
STR-89-42		NT	T	NT	NT	14.7	14.5	15.0	14.0	14.0	81	81	78	79	58	52	50	57					
STR-89-43		NT	NT	NT	NT	14.4	14.0	15.0	14.0	14.0	82	80	70	74	59	52	53	56					
STR-89-44		NT	NT	NT	NT	15.1	16.0	14.0	15.0	15.0	79	81	77	79	58	52	49	60					
STR-89-45		NT	NT	NT	NT	14.3	14.8	14.0	15.0	15.0	79	82	78	81	58	52	45	55					
STR-89-48		T	NT	NT	T	14.8	15.4	15.0	15.0	15.0	77	84	78	79	50	43	42	60					
STR-89-49		T	T	NT	NT	15.8	15.8	15.0	15.0	15.0	75	81	77	80	49	52	49	57					
STR-89-50		T	NT	NT	NT	15.2	15.6	16.0	14.0	14.0	77	75	78	74	50	56	50	56					
STR-89-51		T	NT	NT	NT	14.6	14.2	14.0	14.0	14.0	75	84	78	81	49	33	50	55					
STR-89-52		NT	NT	NT	NT	14.7	14.5	15.0	14.0	14.0	74	81	70	76	52	52	53	56					
STR-89-53		T	NT	NT	NT	15.4	14.3	16.0	14.0	14.0	76	82	68	79	49	52	54	57					

* NT - paint did not track.

T - paint tracked.

TABLE 8. WEATHER INFORMATION FOR TEST STRIPE INSTALLATION (Kentucky)

DATE	TIME	AIR TEMPERATURE	PAVEMENT TEMPERATURE		RELATIVE HUMIDITY (%)
			ASPHALT	PCC	
6/6/89	10:00a	69	76	66	60
6/6/89	11:00a	74	84	81	52
6/6/89	Noon	76	90	84	49
6/6/89	1:00p	77	90	88	50
6/6/89	2:00p	75	90	83	49
6/6/89	3:00p	77	90	88	50
6/7/89	9:00a	72	72		61
6/7/89	10:00a	75	80		56
6/7/89	11:00a	82	88		42
6/7/89	Noon	82	99		32
6/7/89	1:00p	84	106	95	33
6/7/89	2:00p	84	109	98	43
6/7/89	3:00p	84	108	98	43
6/8/89	9:00a	77	78	64	57
6/8/89	10:00a	80	87		52
6/8/89	11:00a	81	85		52
6/8/89	Noon	82	90		
6/8/89	1:00p	81	88		
6/8/89	2:00p	81	96		
6/8/89	3:00p	84	100		
6/9/89	1:00p	79		89	58
6/9/89	2:00p	81		92	58
6/9/89	3:00p	82		95	59
6/16/89	9:00a	64		62	82
6/16/89	10:00a	64		62	82
6/16/89	11:00a	67		66	65
6/16/89	Noon	67		70	70
6/16/89	1:00p	69		72	67
6/16/89	2:00p	67		70	72
6/22/89	10:00a	84	90		42
6/22/89	11:00a	85	100		69
6/22/89	Noon	85	102	101	69
6/22/89	1:00p	89		106	60
6/22/89	2:00p	88		101	56
6/22/89	3:00p	85		101	55
6/22/89	4:00p	90		107	53
6/22/89	5:00p	92		109	51

TABLE 9. WEATHER INFORMATION FOR TEST STRIPE INSTALLATION (Alabama)

DATE	TIME	AIR TEMPERATURE	PAVEMENT TEMPERATURE		RELATIVE HUMIDITY (%)
			ASPHALT	PCC	
5/2/89	9:00a	68	74	70	76
5/2/89	10:00a	74	89	75	56
5/2/89	11:00a	76	92	81	56
5/2/89	Noon	79	95	87	57
5/2/89	1:00p	81	98		55
5/2/89	2:00p	79	100		60
5/2/89	3:00p	80	104		45
5/3/89	9:00a	63	68	65	66
5/3/89	10:00a	68	79	68	54
5/3/89	11:00a	71	88	74	51
5/3/89	Noon	78	97	82	50
5/3/89	1:00p	77	97	88	49
5/3/89	2:00p	78	99		42
5/3/89	3:00p	76	102		56
5/4/89	8:00a				58
5/4/89	9:00a	72	74		52
5/4/89	10:00a	74	80	75	49
5/4/89	11:00a	78	92	79	44
5/4/89	Noon	82	98	84	46
5/4/89	1:00p	81	104	85	46
5/5/89	9:00a	71	72		86
5/5/89	10:00a	77	84		74
5/5/89	Noon	82	84		62
5/8/89	10:00a	76		81	50
5/8/89	11:00a	79		85	48
5/8/89	Noon	84		88	40
5/8/89	1:00p	84		92	45
5/8/89	2:00p	84		94	42
5/8/89	3:00p	84		96	42
5/9/89	9:00a	75		80	79
5/9/89	10:00a	75		82	79
5/9/89	11:00a	78		88	74
5/9/89	Noon	80		90	69
5/9/89	1:00p	78		91	70
5/9/89	2:00p	82		95	59
5/9/89	3:00p	84		98	64
5/10/89	9:00a	72		67	72
5/10/89	10:00a	72		68	70
5/10/89	11:00a	76		79	68
5/10/89	Noon	78		88	51
5/10/89	1:00p	77		89	56
5/10/89	2:00p	78		92	50

TABLE 10. WEATHER INFORMATION OVER EVALUATION PERIOD

MONTH	AVERAGE TEMPERATURE (FAHRENHEIT)		TOTAL RAINFALL (INCHES)		TOTAL SNOWFALL (INCHES)	
	KY	AL	KY	AL	KY	AL
May 1989	61	71	5.4	3.8	0.0	0.0
June 1989	72	78	4.3	14.4	0.0	0.0
July 1989	76	81	4.2	8.8	0.0	0.0
August 1989	74	81	4.0	4.1	0.0	0.0
September 1989	68	76	5.0	4.7	0.0	0.0
October 1989	57	64	3.4	3.8	0.0	0.0
November 1989	45	55	2.4	6.4	1.1	0.0
December 1989	23	41	1.8	9.2	9.3	Trace
January 1990	42	51	4.2	10.2	0.2	0.0
February 1990	43	56	3.4	7.6	0.0	0.0
March 1990	49	60	1.9	12.4	3.7	0.0
April 1990	53	63	2.4	3.7	0.0	0.0
May 1990	62	*	5.4	*	0.0	*

* Last data collection in April.

TABLE 11. Reflectivity Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Kentucky)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, White (60 sec)												
4**	282	134	130	122	113	120	73	119	99	93	85	79
	291	188	177	163	146	153	100	148	140	132	135	125
6	362	157	149	135	122	125	93	138	113	107	98	92
	385	218	197	198	156	179	126	167	152	143	148	140
8	256	110	110	111	95	100	63	90	82	72	64	57
	269	165	154	142	136	135	97	146	133	123	124	99
10	332	140	134	131	113	117	72	98	83	77	66	62
	339	203	178	169	151	160	114	162	137	140	128	120
41	243	149	151	146	122	124	89	97	79	66	62	52
	251	224	194	184	172	163	119	155	143	132	137	124
43	213	144	140	139	121	118	80	95	71	57	49	47
	199	207	189	184	170	176	130	175	166	154	155	136
50	190	116	117	112	103	102	66	103	80	70	65	52
	199	159	161	151	136	148	113	156	143	142	133	117
Paint - Solvent, White (3 min or more)												
2	308	193	181	182	169	169	137	181	154	146	128	123
	325	273	241	221	205	222	178	221	204	193	190	179
12	246	155	161	159	140	140	117	137	104	99	90	75
	281	237	230	224	206	207	155	183	153	146	142	132
Paint - Solvent, Yellow (60 sec)												
5	227	78	84	81	79	83	62	101	90	80	79	73
	232	110	101	100	97	100	70	110	106	99	98	101
7	242	93	90	84	77	83	65	92	85	71	72	64
	246	131	116	112	100	108	78	107	101	96	96	94
9	272	99	96	91	85	89	66	97	82	68	69	61
	263	144	128	123	110	122	84	116	116	108	105	103
11	260	103	104	97	86	91	67	86	72	62	57	47
	264	148	134	129	118	122	85	124	111	105	104	91
40	170	109	106	101	98	103	85	113	96	82	81	68
	172	159	149	152	138	149	121	154	146	144	135	134
42	176	117	119	111	101	103	89	91	70	63	56	45
	163	157	148	151	138	150	111	144	133	120	125	116
52	154	87	86	80	69	74	53	70	58	50	46	42
	154	123	117	114	104	106	82	105	99	87	91	82
53	129	75	75	72	64	72	49	70	58	56	47	39
	122	94	90	89	81	90	67	99	91	87	87	86

TABLE 11. Reflectivity Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Kentucky)
(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, Yellow (3 min or more)												
3	252	147	136	128	116	121	105	133	117	106	102	85
	264	219	207	192	181	186	145	169	150	150	137	127
13	223	137	134	134	111	120	103	125	98	85	78	68
	258	200	200	196	168	180	134	149	134	119	119	108
Paint - Water, White (60 sec)												
14	338	136	131	124	120	125	110	131	113	98	91	80
	347	210	183	184	185	206	172	184	163	150	149	129
16	328	163	148	135	127	134	114	133	118	97	99	88
	332	231	206	214	203	224	183	221	198	183	176	161
51	137	96	113	86	78	87	69	95	81	70	63	58
	148	119	113	114	110	126	102	133	119	112	112	87
Paint - Water, White (90 sec)												
19	347	180	166	152	138	146	126	139	111	92	94	75
	348	266	251	242	241	265	222	228	202	194	183	158
45	257	194	182	177	173	177	161	198	173	152	145	130
	245	244	238	235	240	264	234	287	269	259	248	234
Paint - Water, Yellow (60 sec)												
15	323	173	157	146	133	140	121	148	121	108	108	92
	323	237	191	212	180	224	193	190	191	182	184	171
17	292	144	135	123	124	123	106	137	114	99	98	93
	279	203	175	189	175	192	169	195	178	165	162	152
18	251	96	89	83	80	84	72	87	82	71	72	61
	242	149	138	138	136	145	122	145	136	128	120	114
20	333	190	169	151	145	138	114	125	99	86	83	72
	335	292	260	259	261	258	215	235	211	200	189	171
25	326	121	109	98	90	101	79	88	72	61	58	52
	328	230	231	206	195	206	168	188	169	148	148	130
26	281	129	123	106	98	102	91	113	98	82	79	66
	288	206	163	192	153	198	163	191	176	172	168	146
48	106	65	57	59	58	62	54	71	62	55	50	47
	108	85	77	80	81	91	77	91	86	81	79	73
49	119	76	73	70	69	69	61	82	72	66	55	56
	122	95	91	91	88	98	87	105	97	92	89	82
Paint - Water, Yellow (90 sec)												
44	183	121	113	111	107	112	100	129	111	98	95	84
	180	174	166	168	160	179	156	192	183	172	166	155

TABLE 11. Reflectivity Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Kentucky)
(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Polyester, White (90 sec)												
23	406	325	315	309	276	285	230	270	257	243	236	221
	398	357	342	344	328	340	286	328	311	288	313	287
Paint - Polyester, White (30 min)												
21	362	315	298	303	279	268	229	266	255	236	225	228
	361	335	330	329	319	342	269	327	330	317	325	308
Paint - Polyester, Yellow (90 sec)												
24	282	205	198	187	169	175	148	162	157	151	137	130
	264	225	218	217	200	217	183	196	191	189	194	182
Paint - Polyester, Yellow (30 min)												
22	240	177	166	163	139	152	131	147	140	131	128	114
	229	193	188	190	182	185	162	179	173	171	168	163
Thermoplastic - White, Alkyd												
47	359	198	171	142	137	147	139	196	203	208	214	211
	445	353	359	265	161	150	119	164	186	157	175	179
60	394	336	360	362	348	355	344	347	344	318	322	300
	430	414	382	384	359	371	323	395	441	426	442	417
Thermoplastic - White, Hydrocarbon												
35	240	150	125	142	147	160	136	184	189	175	187	175
	426	294	357	329	154	141	126	161	177	167	184	207
58	440	355	348	347	310	300	271	286	282	275	269	246
	452	408	391	369	289	303	268	378	363	367	391	371
Methacrylate - White												
31	391	310	325	287	238	254	195	193	174	167	158	138
	396	361	369	382	350	339	320	337	316	326	309	323
32	292	231	245	223	193	160	150	147	142	138	140	112
	298	251	254	266	247	238	223	229	230	228	229	221
Thermoplastic - Yellow, Alkyd												
46	267	154	140	117	79	77	69	103	115	110	129	125
	261	178	183	186	125	105	80	82	78	79	89	89
59	225	131	173	155	144	154	129	141	158	129	156	155
	293	176	194	204	178	178	145	172	188	174	191	193
Thermoplastic - Yellow, Hydrocarbon												
34	184	131	118	88	66	67	59	81	91	88	103	99
	178	160	162	170	149	145	108	90	90	85	91	92
57	213	150	172	169	136	150	131	128	144	141	127	128
	248	201	216	218	174	170	147	161	173	166	184	184
Preformed Thermoplastic, White												
1	357	337	334	268	204	197	149	153	155	150	166	139
	310	410	369	407	378	375	288	299	280	318	309	301

TABLE 11. Reflectivity Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Kentucky)
(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Permanent Tape, White												
37	420	266	232	184	175	138	127	155	147	146	138	122
	416	334	264	239	203	197	180	176	197	171	175	180
55	592	475	468	429	346	317	259	186	166	149	139	125
	599	570	579	598	572	527	450	409	416	346	381	351
62	359	370	353	316	303	262	249	176	158	151	153	114
	340	391	379	404	415	373	344	288	315	281	231	265
Temporary Tape, White												
30	736	585	528	491	393	362	296	233	190	167	154	147
	704	701	647	642	563	572	503	473	491	450	462	412
Permanent Tape, Yellow												
36	329	146	126	91	88	72	61	84	78	82	88	73
	324	216	172	150	115	111	106	75	111	75	94	113
56	453	339	318	283	252	210	185	146	144	127	122	108
	429	445	403	405	370	355	313	275	269	273	266	259
Temporary Tape, Yellow												
27	534	425	394	343	287	234	208	179	156	144	128	114
	499	449	436	400	363	337	304	302	311	302	290	258

* Millicandelas per square foot per footcandle.

** Top number is left wheel track measurement and bottom number is centerline measurements.

TABLE 12. Reflectivity Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Alabama)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990
Paint - Solvent, White (60 sec)												
4**	174	169	169	183	***	126	107	94	107	114	95	116
	181	176	179	170	***	68	122	136	133	162	117	117
6	177	180	175	174	***	132	116	94	102	116	102	119
	186	192	169	181	***	147	133	142	145	164	134	137
8	168	169	161	170	***	116	107	92	103	112	98	107
	177	174	173	160	***	120	111	113	128	131	108	126
10	163	168	171	160	***	104	93	75	88	96	85	94
	183	197	172	181	***	136	128	124	136	129	115	116
41	207	181	194	174	***	138	101	101	132	127	101	114
	269	240	231	209	***	196	117	149	169	159	131	138
43	194	191	164	173	***	120	93	82	109	105	84	99
	277	258	223	219	***	182	118	136	158	135	112	106
50	187	186	189	171	***	134	102	93	115	118	92	102
	297	244	207	202	***	173	120	141	169	164	129	125
Paint - Solvent, White (3 min or more)												
2	149	162	176	204	***	145	122	104	124	126	108	129
	163	186	188	194	***	176	122	154	164	174	154	153
12	196	185	174	165	***	139	101	91	114	111	94	111
	279	265	253	242	***	223	148	166	188	168	135	151
Paint - Solvent, Yellow (60 sec)												
5	144	143	137	135	***	87	84	77	87	101	89	102
	163	154	143	142	***	90	89	90	100	110	82	93
7	125	182	114	114	***	73	76	73	88	93	80	87
	130	130	147	118	***	83	79	86	102	104	80	88
9	127	135	138	138	***	87	97	85	98	103	89	102
	139	156	138	120	***	85	87	94	126	108	92	101
11	144	147	132	138	***	88	91	80	81	85	66	86
	163	180	157	132	***	107	105	101	110	113	103	100
40	152	158	167	170	***	133	91	83	119	107	94	118
	189	196	187	169	***	146	91	108	124	136	91	105
42	150	157	155	167	***	138	93	82	119	104	95	130
	191	199	181	171	***	140	121	113	127	116	101	99
52	140	135	129	147	***	115	86	74	100	98	89	112
	176	172	143	145	***	120	86	98	116	125	99	112
53	119	124	126	135	***	103	77	69	93	90	84	101
	148	143	116	133	***	99	76	83	103	95	87	89

TABLE 12. Reflectivity Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Alabama)
(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990
Paint - Solvent, Yellow (3 min or more)												
3	199	175	163	170	***	110	105	95	107	109	88	106
	268	232	216	188	***	145	127	135	137	146	111	111
13	166	158	167	158	***	123	86	85	156	100	84	111
	227	223	200	178	***	177	125	147	152	163	118	123
Paint - Water, White (60 sec)												
14	159	149	138	181	***	123	116	93	117	107	108	127
	189	167	138	183	***	105	116	127	115	127	110	112
16	195	195	173	157	***	113	111	106	109	112	93	115
	259	239	201	190	***	147	111	186	139	156	128	130
51	150	134	132	143	***	101	90	74	98	94	78	95
	185	167	134	131	***	134	105	119	132	130	115	95
Paint - Water, White (90 sec)												
19	203	178	171	175	***	114	116	104	117	117	100	125
	289	221	199	187	***	140	116	160	151	147	132	128
45	180	181	141	133	***	109	97	86	122	112	81	112
	199	202	191	63	***	69	41	59	111	117	65	69
Paint - Water, Yellow (60 sec)												
15	196	172	152	158	***	107	95	89	100	104	93	101
	279	233	185	178	***	145	95	146	143	139	121	121
17	125	198	186	169	***	113	115	100	107	112	94	112
	261	235	208	201	***	141	115	152	140	163	141	140
18	228	186	188	152	***	102	100	101	102	106	88	100
	301	278	178	203	***	174	100	169	150	180	122	141
20	180	153	141	148	***	96	96	91	105	99	84	110
	222	189	165	236	***	125	96	143	140	149	113	119
25	211	181	152	145	***	93	82	89	92	97	73	89
	291	251	188	168	***	140	82	145	137	147	114	118
26	188	152	136	137	***	84	82	78	90	92	76	90
	266	255	171	152	***	126	82	131	124	123	117	107
48	108	100	86	95	***	51	49	55	64	72	58	69
	120	102	110	81	***	52	47	57	76	92	58	70
49	122	107	101	97	***	56	47	60	73	76	52	75
	133	126	134	91	***	68	47	80	76	86	51	65
Paint - Water, Yellow (90 sec)												
44	160	146	122	120	***	78	71	74	80	96	62	86
	163	159	89	73	***	35	33	48	110	107	60	63

TABLE 12. Reflectivity Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Alabama)
(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT ^a											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990
Paint - Polyester, White (90 sec)												
23	274	267	234	247	***	178	165	150	159	164	137	165
	309	339	271	146	***	120	127	114	206	136	92	171
Paint - Polyester, White (30 min)												
21	284	261	199	222	***	152	152	146	152	163	139	139
	311	344	270	263	***	211	206	220	212	252	185	180
Paint - Polyester, Yellow (90 sec)												
24	164	157	161	161	***	117	106	93	104	113	89	126
	194	196	136	128	***	96	106	101	131	114	76	110
Paint - Polyester, Yellow (30 min)												
22	159	179	154	134	***	86	84	83	89	96	80	91
	170	190	162	149	***	111	110	122	133	126	102	113
Thermoplastic - White, Alkyd												
47	277	333	245	276	***	238	193	123	268	226	180	161
	279	292	189	206	***	174	119	105	168	185	109	148
60	338	384	328	297	***	244	205	172	203	220	176	201
	375	352	322	312	***	273	228	225	240	275	210	208
Thermoplastic - White, Hydrocarbon												
35	256	317	212	212	***	194	156	115	316	197	170	188
	302	242	234	199	***	166	113	123	147	197	119	158
58	386	438	330	306	***	296	227	204	228	253	217	232
	417	381	329	313	***	353	244	232	233	278	216	229
Methacrylate - White												
31	305	376	281	271	***	209	168	108	142	162	153	133
	402	388	365	309	***	317	170	192	210	248	159	180
32	241	305	197	212	***	169	127	89	137	137	115	122
	307	281	292	252	***	267	169	146	181	220	128	113
Thermoplastic - Yellow, Alkyd												
46	120	156	151	155	***	152	109	73	131	144	132	134
	107	92	98	106	***	105	73	68	106	99	76	81
59	161	191	168	226	***	179	142	98	170	142	168	162
	185	165	156	164	***	192	142	127	153	174	123	132
Thermoplastic - Yellow, Hydrocarbon												
34	122	171	169	138	***	154	97	65	117	135	123	133
	159	145	152	159	***	132	67	69	90	93	62	72
57	152	212	167	174	***	170	122	91	141	142	117	123
	186	157	198	166	***	174	119	116	141	163	103	105
Preformed Thermoplastic, White												
1	270	284	296	243	***	208	154	120	161	183	166	168
	310	305	305	235	***	190	135	144	173	176	122	136

TABLE 12. Reflectivity Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Alabama)
(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990
Permanent Tape, White												
37	372	239	186	156	***	112	103	96	103	107	76	104
	530	378	372	323	***	259	243	282	215	292	231	207
55	397	337	351	281	***	202	167	136	157	154	115	136
	537	485	431	422	***	336	303	293	294	318	237	244
62	287	287	286	255	***	185	161	136	140	147	106	147
	441	371	366	337	***	290	256	276	263	288	220	205
Temporary Tape, White												
30	375	287	257	212	***	157	126	100	130	129	97	137
	580	525	405	391	***	303	278	283	236	292	172	206
Permanent Tape, Yellow												
36	304	215	189	229	***	123	94	86	96	102	65	99
	404	359	295	204	***	251	199	219	198	229	159	153
56	331	261	252	228	***	161	139	108	126	124	91	131
	447	416	389	318	***	278	251	257	249	261	210	198
Temporary Tape, Yellow												
27	292	248	232	175	***	129	100	88	129	107	83	97
	416	397	340	293	***	251	220	208	187	212	170	164

* Millicandelas per square foot per footcandle.

** Top number is wheel track measurement and bottom number is centerline measurements.

*** Data not available.

TABLE 13. Reflectivity Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Kentucky)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, White (60 sec)												
4**	288	200	160	160	159	108	141	117	86	78	65	54
	311	236	208	189	193	147	163	179	163	164	144	147
6	377	206	172	152	151	106	133	109	97	94	84	69
	402	264	242	219	200	160	175	168	146	154	136	142
8	299	186	174	155	154	114	134	88	65	62	61	45
	337	241	202	197	182	139	163	164	165	158	147	148
10	326	185	160	141	130	105	112	87	66	59	58	47
	360	238	204	185	174	122	154	157	135	129	119	120
41	206	204	181	152	153	97	137	103	92	101	94	82
	242	232	209	186	168	135	143	145	131	127	118	119
43	174	157	149	110	110	85	93	79	71	73	69	65
	198	184	154	142	130	108	112	107	98	98	97	93
50	191	171	137	144	138	94	129	99	79	75	69	57
	195	173	167	160	166	134	154	175	151	155	146	136
Paint - Solvent, White (3 min or more)												
2	242	241	211	196	186	140	174	147	126	121	118	101
	299	282	243	212	212	179	189	185	170	173	162	160
12	221	220	186	180	154	113	133	107	92	95	82	78
	279	276	261	232	205	167	174	168	133	141	120	121
Paint - Solvent, Yellow (60 sec)												
5	154	147	132	105	99	76	89	81	78	75	71	57
	185	186	154	141	130	102	112	118	103	107	95	100
7	159	150	138	110	102	68	89	83	78	75	75	64
	201	192	162	147	136	111	116	120	103	105	99	93
9	132	134	128	98	94	72	82	70	63	63	65	53
	175	154	132	126	113	87	95	98	92	95	84	83
11	153	141	126	98	97	67	88	73	60	62	54	46
	182	166	139	128	121	93	103	100	87	88	78	81
40	167	176	158	153	139	108	130	105	86	82	76	59
	195	199	176	169	154	127	134	130	116	124	110	103
42	158	172	165	129	114	89	100	83	71	70	72	57
	178	171	156	151	136	111	121	124	106	106	94	89
52	135	116	94	93	86	59	75	53	49	54	48	44
	138	116	110	104	98	76	95	98	86	89	84	78
53	131	111	87	93	89	61	80	66	49	49	44	39
	141	118	108	101	103	74	97	104	94	97	89	87

TABLE 13. Reflectivity Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Kentucky)(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, Yellow (3 min or more)												
3	245	218	196	182	170	139	153	141	122	114	105	94
	268	259	231	214	205	172	181	169	158	160	152	144
13	172	180	159	153	139	96	121	98	84	81	79	71
	261	237	210	198	189	154	162	149	122	117	105	97
Paint - Water, White (60 sec)												
14	250	235	200	200	177	147	152	99	86	78	95	68
	274	256	233	231	232	202	199	187	181	173	160	150
16	272	264	224	211	190	160	167	121	112	98	98	87
	312	283	263	246	230	208	215	195	159	173	167	151
51	150	117	105	101	98	71	82	78	62	60	66	56
	148	133	123	123	131	109	128	137	122	122	112	107
Paint - Water, White (90 sec)												
19	254	233	224	212	188	163	163	131	115	109	103	91
	278	280	255	255	247	224	222	202	190	179	174	165
45	249	249	219	229	223	187	208	193	158	153	144	120
	303	310	291	292	306	266	306	318	299	288	276	257
Paint - Water, Yellow (60 sec)												
15	212	229	193	175	160	134	136	98	85	82	75	68
	271	258	220	212	204	182	191	165	153	151	136	136
17	195	189	166	154	149	123	127	100	104	90	96	89
	244	222	196	187	180	161	174	166	151	146	132	132
18	193	197	169	151	148	119	125	96	82	74	77	65
	211	209	192	189	178	156	168	147	138	136	126	120
20	221	188	164	163	142	113	122	99	87	84	82	78
	232	198	188	177	179	159	172	164	150	143	140	124
25	232	237	208	200	181	142	151	126	89	80	73	59
	267	264	244	243	240	214	220	218	201	189	174	164
26	137	140	125	113	113	91	98	82	71	65	68	59
	158	151	147	139	150	124	144	130	125	120	113	107
48	120	86	78	74	74	51	69	53	51	52	47	43
	124	105	97	97	101	75	98	96	89	95	83	79
49	125	91	112	81	82	58	73	66	60	63	62	54
	135	117	107	101	104	81	96	100	88	97	87	87
Paint - Water, Yellow (90 sec)												
44	161	158	136	136	139	113	132	136	115	115	106	97
	192	189	182	173	186	158	182	193	183	189	167	163

TABLE 13. Reflectivity Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Kentucky)(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Polyester, White (90 sec)												
23	354	321	324	263	---	---	---	---	---	---	---	---
	353	323	312	308	287	276	301	283	259	255	234	243
Paint - Polyester, White (30 min)												
21	403	351	338	327	306	253	304	291	267	271	263	224
	415	378	356	364	351	311	348	370	350	358	355	343
Paint - Polyester, Yellow (90 sec)												
24	256	220	201	196	141	---	---	---	---	---	---	---
	265	231	224	218	210	177	205	214	209	217	199	196
Paint - Polyester, Yellow (30 min)												
22	230	204	190	184	178	147	173	171	163	165	153	136
	235	210	202	198	193	163	196	193	198	200	179	190
Thermoplastic - White, Alkyd												
47	250	470	306	179	146	134	152	195	209	239	231	222
	216	527	408	406	232	150	148	141	150	162	167	177
60	485	494	445	449	403	373	376	350	343	350	342	332
	429	517	479	528	474	440	443	420	410	432	415	401
Thermoplastic - White, Hydrocarbon												
35	287	363	169	157	153	143	171	179	189	212	202	197
	280	430	334	308	175	132	132	142	143	162	180	183
58	496	458	385	362	339	305	331	293	289	305	280	265
	439	489	454	499	425	400	381	379	360	385	358	372
Methacrylate - White												
31***	---	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	---
32	326	310	259	275	225	168	165	142	150	202	171	153
	318	344	283	304	295	258	264	256	245	278	240	230
Thermoplastic - Yellow, Alkyd												
46	241	203	141	113	90	69	81	94	112	141	132	132
	192	225	185	167	97	70	73	59	70	77	81	84
59	250	241	190	208	201	152	166	152	157	169	196	171
	198	254	214	230	210	208	199	175	173	191	179	199
Thermoplastic - Yellow, Hydrocarbon												
34	216	183	159	111	94	68	86	83	107	142	124	124
	179	183	180	185	173	127	118	87	81	95	84	93
57	205	201	162	152	152	128	147	134	148	155	145	136
	183	219	181	180	155	144	151	161	166	177	167	184
Preformed Thermoplastic, White												
1	334	380	352	326	292	224	211	166	167	188	186	195
	363	394	385	395	371	334	316	269	271	262	273	261

TABLE 13. Reflectivity Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Kentucky)(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Permanent Tape, White												
37	457	343	247	207	190	163	188	181	154	153	131	127
	427	389	329	302	277	262	253	247	235	236	219	214
55	654	586	507	432	413	341	295	196	165	151	143	127
	651	631	621	613	573	594	555	508	468	449	456	442
62	393	411	365	375	361	330	283	185	150	131	115	114
	416	430	423	427	395	426	380	351	357	341	318	338
Temporary Tape, White												
30	800	689	578	518	476	399	376	241	186	172	136	126
	800	728	635	642	638	609	584	539	508	465	482	431
Permanent Tape, Yellow												
36	321	208	157	139	118	114	123	90	95	93	86	77
	329	258	202	190	177	176	170	134	142	148	133	135
56	529	432	335	308	278	230	201	145	127	118	107	98
	510	477	419	418	393	380	366	351	340	332	302	322
Temporary Tape, Yellow												
27	557	473	416	367	330	308	272	202	158	146	125	108
	558	507	473	461	446	410	399	378	356	334	331	332

* Millicandelas per square foot per footcandle.

** Top number is wheel track measurement and bottom number is centerline measurements.

*** White methacrylate #31 was not applied on the PCC pavement.

TABLE 14. Reflectivity Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Alabama)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990
Paint - Solvent, White (60 sec)												
4**	173	216	139	115	112	96	101	108	125	122	88	115
	210	198	183	146	142	162	117	108	142	143	97	142
6	163	194	137	104	109	120	98	103	114	108	83	116
	174	184	181	141	137	145	115	107	129	122	94	130
8	223	245	163	129	133	142	117	115	132	126	95	126
	233	222	198	160	171	181	122	122	145	138	131	154
10	240	259	190	127	134	146	119	107	113	103	69	100
	261	236	206	183	187	189	142	115	135	137	99	133
41	243	250	185	164	167	173	145	129	136	130	89	134
	248	228	216	194	187	198	169	138	147	157	103	152
43	232	252	175	147	158	151	129	122	133	139	88	126
	240	228	241	192	214	221	151	139	152	161	114	150
50	209	225	174	131	146	144	117	111	127	118	75	103
	228	200	201	148	186	185	166	122	153	155	99	146
Paint - Solvent, White (3 min or more)												
2	305	308	242	182	198	189	161	144	167	153	119	152
	334	283	251	202	219	228	179	150	198	190	154	181
12	246	275	214	164	176	170	134	131	151	145	111	135
	299	282	145	187	203	222	144	137	156	154	121	156
Paint - Solvent, Yellow (60 sec)												
5	151	169	130	94	105	108	88	76	104	96	71	99
	155	157	145	109	125	125	88	88	110	106	70	110
7	130	144	122	86	107	98	82	73	94	83	60	92
	160	148	142	107	128	123	92	78	111	99	61	106
9	172	181	147	102	114	117	94	93	111	106	69	105
	193	183	167	130	124	140	113	95	123	113	81	125
11	143	167	118	86	101	105	82	82	94	96	61	91
	177	158	144	107	123	129	95	83	108	104	66	101
40	164	209	158	133	139	139	123	109	131	129	72	117
	197	182	202	139	168	166	141	119	154	133	84	139
42	199	196	160	124	141	144	115	99	121	120	78	114
	222	198	189	144	156	168	136	117	126	134	89	131
52	165	195	117	109	118	109	94	103	152	95	55	90
	182	159	168	142	152	149	119	99	126	116	74	116
53	162	183	115	105	107	116	88	83	92	89	56	87
	164	167	169	146	135	146	113	97	116	116	81	113

TABLE 14. Reflectivity Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Alabama)(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990
Paint - Solvent, Yellow (3 min or more)												
3	208	238	197	159	172	178	161	156	172	166	129	158
	252	244	163	173	183	191	156	155	163	161	128	181
13	137	166	126	88	133	109	94	87	107	97	64	101
	159	154	161	117	136	125	98	82	114	98	82	111
Paint - Water, White (60 sec)												
14	170	213	144	147	158	153	146	146	150	142	99	147
	183	195	174	175	197	181	199	169	184	166	117	159
16	189	215	182	137	157	155	143	144	158	148	107	140
	180	199	184	185	181	174	162	147	184	162	112	165
51	149	170	117	115	129	147	119	115	122	121	79	114
	174	170	186	159	169	164	167	163	165	155	107	157
Paint - Water, White (90 sec)												
19	176	199	185	141	165	154	141	143	151	141	95	133
	180	188	193	161	196	179	156	152	174	157	109	152
45	194	238	156	162	187	182	177	188	190	182	137	170
	229	242	223	187	226	219	191	205	230	203	176	208
Paint - Water, Yellow (60 sec)												
15	210	238	209	160	182	172	153	146	156	156	104	142
	210	220	206	170	186	188	177	150	165	169	121	159
17	200	224	197	150	159	162	146	145	152	143	97	136
	214	214	189	160	178	176	156	154	170	154	112	144
18	211	230	203	155	171	162	156	140	153	155	109	147
	229	212	219	169	219	195	182	164	193	176	118	169
20	185	210	151	145	156	155	139	141	143	141	94	135
	203	196	197	161	179	173	171	132	163	154	116	159
25	195	224	182	137	151	150	140	127	146	145	99	138
	215	202	203	167	193	195	176	140	178	177	136	170
26	201	214	188	143	158	157	146	134	152	148	104	142
	232	215	208	164	192	193	176	153	182	170	137	185
48	107	135	108	87	104	105	96	92	100	94	64	92
	119	141	140	116	125	135	130	110	126	119	82	116
49	118	144	104	90	104	107	97	100	101	95	61	90
	129	137	120	125	114	144	128	118	136	126	80	123
Paint - Water, Yellow (90 sec)												
44	155	187	140	127	148	151	137	139	130	142	91	129
	174	179	186	152	174	184	163	161	180	166	116	156

TABLE 14. Reflectivity Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Alabama)(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990
Paint - Polyester, White (90 sec)												
23	275	286	247	191	103	84	93	64	70	71	49	112
	296	287	273	231	271	265	231	206	251	241	172	201
Paint - Polyester, White (30 min)												
21	262	262	252	221	225	234	213	209	229	201	154	204
	308	308	297	247	301	302	253	237	259	255	203	255
Paint - Polyester, Yellow (90 sec)												
24	138	183	153	100	89	83	67	54	67	69	35	96
	161	169	163	150	164	167	109	91	150	154	105	126
Paint - Polyester, Yellow (30 min)												
22	149	169	138	124	136	131	118	117	133	127	83	123
	166	167	180	143	175	158	148	135	160	156	114	156
Thermoplastic - White, Alkyd												
47	353	316	278	159	148	167	139	155	155	172	134	184
	368	361	342	326	214	269	174	160	152	157	120	180
60	496	467	510	431	415	427	367	362	382	388	283	355
	446	480	496	451	441	386	403	359	386	378	305	367
Thermoplastic - White, Hydrocarbon												
35	312	263	174	153	159	185	172	183	184	202	154	208
	357	336	345	214	190	181	169	169	163	178	136	203
58	429	463	478	401	441	348	319	299	308	311	234	288
	336	416	427	395	435	362	355	327	294	327	279	316
Methacrylate - White												
31	388	453	378	429	322	276	223	204	222	271	205	306
	397	478	494	431	386	394	341	276	380	412	273	410
32	315	364	352	361	239	222	176	205	165	184	157	176
	289	333	339	377	350	299	272	244	284	288	200	281
Thermoplastic - Yellow, Alkyd												
46	163	180	185	151	100	121	91	103	89	97	74	116
	189	177	264	183	156	164	102	99	97	163	75	137
59	150	225	170	185	222	176	147	164	153	150	100	142
	164	195	167	162	169	157	158	171	153	162	135	165
Thermoplastic - Yellow, Hydrocarbon												
34	146	162	188	124	116	91	96	90	85	105	74	103
	156	165	312	196	166	136	81	91	84	89	59	100
57	204	302	214	167	169	154	129	124	127	129	90	134
	185	232	219	180	204	177	172	168	169	169	156	183
Preformed Thermoplastic, White												
1	353	370	407	330	309	284	231	213	198	194	151	190
	281	390	407	362	423	328	281	264	295	263	218	230

TABLE 14. Reflectivity Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Alabama)(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990
Permanent Tape, White												
37	411	397	339	210	252	232	201	181	184	170	146	292
	459	411	416	325	333	379	323	267	335	284	269	289
55	468	470	391	343	319	374	276	217	217	226	167	276
	509	486	482	411	414	451	407	344	399	342	264	367
62	380	430	361	314	325	353	276	238	252	234	183	280
	457	396	465	377	402	401	384	343	343	348	277	343
Temporary Tape, White												
30	487	428	387	247	228	227	207	203	201	200	166	209
	550	459	497	398	401	335	391	303	226	310	238	240
Permanent Tape, Yellow												
36	307	287	233	142	150	150	123	100	113	102	81	172
	327	285	301	244	215	243	245	174	206	200	163	186
56	339	331	290	216	211	287	196	165	169	165	119	173
	375	388	368	291	299	350	313	222	284	239	225	258
Temporary Tape, Yellow												
27	384	403	318	182	237	200	210	191	174	183	141	206
	438	442	402	338	356	277	332	261	329	276	224	234

* Millicandelas per square foot per footcandle.

** Top number is wheel track measurement and bottom number is centerline measurements.

TABLE 15. Reflectivity Data for Unbeaded Paint and Thermoplastic Transverse Lines on Asphalt Pavement (Kentucky)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, White (60 sec)												
4**	76	47	37	49	55	58	43	60	64	52	56	50
	64	54	42	40	62	54	43	58	64	55	58	57
6	66	47	35	44	52	51	39	55	58	46	58	49
	63	52	44	44	57	63	51	63	65	72	63	60
8	94	52	45	52	66	67	42	62	60	51	55	54
	85	63	52	69	68	61	48	65	68	57	61	63
10	68	50	42	53	58	66	39	66	59	57	61	56
	64	59	44	46	56	56	45	71	69	63	67	62
41	76	31	31	36	40	49	37	45	51	41	55	54
	68	47	46	42	48	52	44	56	50	48	50	54
43	63	32	30	39	47	49	42	50	52	44	49	49
	72	41	40	42	53	49	43	56	48	46	49	56
50	64	55	40	53	52	54	47	56	57	48	54	53
	69	61	42	48	52	60	52	60	66	54	57	57
Paint - Solvent, White (3 min or more)												
2	66	52	44	52	56	63	49	57	57	53	58	56
	64	61	49	53	59	59	64	64	62	57	69	62
12	65	49	43	47	59	58	49	64	59	54	55	53
	70	57	51	51	59	63	53	74	76	71	71	68
Paint - Solvent, Yellow (60 sec)												
5	78	29	24	34	39	38	31	43	43	37	39	47
	79	35	37	34	40	43	34	45	44	40	41	51
7	80	32	30	30	39	38	31	44	43	36	40	44
	89	36	37	39	39	38	34	44	42	39	41	43
9	76	29	25	29	41	46	28	45	43	38	41	36
	85	41	30	28	59	43	36	50	41	39	45	54
11	84	32	31	34	44	43	32	48	49	41	52	42
	93	38	30	30	45	40	36	46	49	43	55	48
40	61	30	29	29	39	41	34	39	38	35	34	38
	58	40	35	42	43	44	41	48	36	44	47	46
42	64	30	28	38	48	49	36	40	42	34	42	39
	80	37	38	38	47	46	37	45	45	40	47	45
52	53	46	28	36	48	43	38	45	40	35	42	37
	66	52	37	55	60	58	48	50	62	60	53	48
53	48	39	32	37	37	39	31	43	41	35	38	39
	53	44	32	33	39	46	35	44	40	40	39	40

TABLE 15. Reflectivity Data for Unbeaded Paint and Thermoplastic Transverse Lines on Asphalt Pavement (Kentucky)(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, Yellow (3 min or more)												
3	64	41	31	31	43	48	41	41	44	36	42	40
	48	41	42	46	51	47	49	51	53	48	52	54
13	58	35	31	32	44	46	40	55	50	43	45	46
	57	39	38	37	49	49	45	66	61	58	56	61
Paint - Water, White (60 sec)												
14	65	44	38	40	46	51	51	53	47	46	50	48
	69	48	44	43	54	54	55	60	53	57	55	56
16	76	45	32	38	52	65	49	53	50	46	48	44
	76	50	45	42	56	72	52	62	57	61	55	52
51	54	44	42	34	50	41	39	45	44	39	41	37
	58	44	44	46	48	46	54	52	47	44	45	62
Paint - Water, White (90 sec)												
19	76	48	33	38	51	50	51	57	46	46	52	44
	83	53	48	50	57	58	58	63	59	58	60	58
45	67	44	35	35	49	54	49	52	54	42	60	50
	97	55	48	51	60	59	61	68	62	61	60	62
Paint - Water, Yellow (60 sec)												
15	51	35	26	37	40	48	41	44	45	44	45	47
	56	42	31	52	55	40	52	47	51	44	45	48
17	61	40	42	36	45	42	42	45	41	50	48	46
	74	42	41	43	52	48	47	49	50	55	50	52
18	47	31	27	28	40	36	36	38	38	32	41	36
	63	34	31	31	45	39	50	44	39	36	38	44
20	55	39	28	34	41	41	40	48	44	41	42	43
	60	50	45	46	55	54	49	54	51	52	48	53
25	57	30	24	34	34	40	34	38	42	31	37	35
	60	34	35	30	38	46	37	44	42	38	44	40
26	48	31	23	36	38	47	33	41	40	33	40	43
	59	35	26	30	40	48	58	38	39	37	39	41
48	42	37	25	26	37	39	35	37	38	29	30	38
	48	36	27	38	39	40	38	40	36	33	43	33
49	45	38	37	34	38	51	38	41	38	35	40	33
	52	43	38	37	43	40	64	48	44	41	42	49
Paint - Water, Yellow (90 sec)												
44	60	36	29	36	40	44	39	40	39	41	45	47
	57	41	28	41	54	49	53	50	49	60	49	48

TABLE 15. Reflectivity Data for Unbeaded Paint and Thermoplastic Transverse Lines on Asphalt Pavement (Kentucky)(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Polyester, White (90 sec)												
23	37 49	35 43	34 30	21 34	43 49	38 34	36 40	38 41	42 40	33 36	29 33	38 57
Paint - Polyester, White (30 min)												
21	48 48	51 35	30 37	31 30	38 57	42 58	43 46	37 45	49 41	33 36	48 64	44 43
Paint - Polyester, Yellow (90 sec)												
24	33 56	28 35	32 28	34 46	33 32	37 34	34 34	30 31	32 41	32 32	42 31	46 31
Paint - Polyester, Yellow (30 min)												
22	51 83	39 31	28 33	28 23	28 33	36 34	38 38	35 34	30 36	26 33	42 41	39 32
Thermoplastic - White, Alkyd												
47	78 77	60 37	57 45	72 63	67 63	97 65	75 66	165 104	180 103	187 100	201 111	186 118
60	84 84	64 83	86 94	101 92	102 86	158 119	158 88	284 131	310 163	290 131	298 158	288 196
Thermoplastic - White, Hydrocarbon												
35	43 46	45 41	69 64	95 65	112 84	124 87	130 86	195 162	180 171	176 170	181 185	177 198
58	46 44	43 40	73 38	96 53	95 51	179 139	161 69	256 136	262 149	239 169	236 174	222 203
Methacrylate - White												
31	82 96	72 75	75 79	77 84	77 87	89 89	68 89	92 112	96 106	78 104	97 103	106 102
32	87 100	69 75	69 77	67 73	76 78	69 83	68 78	76 92	75 88	62 83	76 81	69 79
Thermoplastic - Yellow, Alkyd												
46	130 145	50 67	61 59	46 50	40 53	57 82	47 44	74 53	92 59	93 50	110 60	112 65
59	57 76	51 54	95 69	89 63	75 80	98 71	87 86	170 77	163 108	149 74	178 87	157 118
Thermoplastic - Yellow, Hydrocarbon												
34	106 130	37 36	44 41	48 48	55 45	58 49	55 47	80 66	91 72	81 68	102 81	107 99
57	56 53	43 29	51 41	74 45	85 56	104 66	118 62	146 103	131 117	126 111	137 125	120 127
Preformed Thermoplastic, White												
1	85 87	95 101	125 106	134 130	128 125	142 149	115 112	149 143	149 166	135 150	142 159	147 170

* Millicandelas per square foot per footcandle.

** Top number is wheel track measurement and bottom number is centerline measurements.

TABLE 16. Reflectivity Data for Unbeaded Paint and Thermoplastic Transverse Lines on Asphalt Pavement (Alabama)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990
Paint - Solvent, White (60 sec)												
4**	97	116	113	139	***	90	35	79	92	87	66	104
	77	87	100	87	***	63	16	74	82	73	63	67
6	100	111	108	150	***	97	53	89	79	91	58	177
	61	66	62	65	***	70	84	64	77	67	66	77
8	108	110	100	192	***	119	21	85	100	82	67	86
	55	171	155	209	***	50	12	66	67	75	53	97
10	101	105	105	192	***	82	25	76	86	74	68	78
	60	72	70	71	***	47	15	64	66	71	58	60
41	89	96	96	178	***	62	54	76	114	82	68	129
	56	74	75	140	***	72	19	63	75	70	50	70
43	85	94	92	112	***	84	53	84	74	73	65	117
	60	76	76	130	***	63	101	64	70	68	88	97
50	91	106	100	180	***	100	79	70	160	109	99	134
	53	70	64	102	***	183	97	55	101	65	43	94
Paint - Solvent, White (3 min or more)												
2	94	96	94	120	***	71	41	84	84	79	83	103
	65	118	74	86	***	51	21	71	89	77	56	73
12	104	103	107	150	***	91	64	73	107	101	86	133
	64	95	67	79	***	60	17	74	74	74	68	68
Paint - Solvent, Yellow (60 sec)												
5	88	100	90	130	***	96	51	70	98	75	72	122
	54	151	94	69	***	48	34	52	73	56	66	63
7	88	93	83	173	***	61	59	61	109	73	59	95
	42	55	40	65	***	65	64	83	75	57	61	116
9	92	94	83	104	***	76	27	68	79	76	60	77
	47	59	58	142	***	188	73	88	57	66	68	51
11	94	98	59	115	***	79	45	70	88	84	65	98
	43	194	14	191	***	88	22	146	108	77	70	82
40	79	90	96	143	***	100	103	69	112	84	92	112
	52	61	67	64	***	49	41	54	64	58	75	56
42	78	96	88	170	***	79	101	68	126	75	61	132
	45	60	60	59	***	43	14	50	60	53	43	46
52	78	87	80	207	***	143	144	81	126	84	80	151
	42	63	72	64	***	32	33	50	66	54	39	56
53	75	82	78	98	***	49	30	58	62	68	53	86
	38	54	59	74	***	59	23	45	58	48	33	62

TABLE 16. Reflectivity Data for Unbeaded Paint and Thermoplastic Transverse Lines on Asphalt Pavement (Alabama)(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990
Paint - Solvent, Yellow (3 min or more)												
3	89	104	127	145	***	94	64	88	121	68	92	102
	43	69	64	80	***	91	82	55	68	91	66	202
13	86	101	84	114	***	77	52	65	101	88	68	105
	60	63	65	76	***	48	28	63	78	68	50	65
Paint - Water, White (60 sec)												
14	112	108	91	107	***	76	110	73	96	90	123	185
	53	108	89	73	***	53	16	74	67	71	58	76
16	100	97	73	159	***	108	79	94	98	102	131	146
	59	152	150	89	***	97	30	64	75	66	67	66
51	91	98	88	86	***	54	30	63	72	65	58	76
	51	61	51	67	***	36	48	53	63	60	42	60
Paint - Water, White (90 sec)												
19	110	103	92	178	***	160	48	84	86	92	84	82
	66	170	108	76	***	51	51	68	71	59	65	63
45	86	99	109	122	***	93	143	75	89	85	68	182
	59	66	54	71	***	14	13	23	80	78	28	25
Paint - Water, Yellow (60 sec)												
15	104	96	88	227	***	154	105	84	130	127	111	176
	46	201	189	82	***	79	148	61	80	57	63	88
17	102	95	80	201	***	115	79	88	109	114	99	116
	47	57	64	60	***	85	37	54	62	54	67	77
18	76	87	80	93	***	69	27	80	74	98	138	185
	65	93	89	183	***	126	63	55	88	73	59	52
20	93	99	88	112	***	65	62	75	72	75	90	89
	47	161	147	59	***	33	37	60	50	43	47	34
25	89	73	70	110	***	77	14	62	76	67	66	66
	45	133	111	34	***	15	14	29	45	37	38	49
26	77	72	68	100	***	76	136	57	64	57	63	170
	45	51	42	49	***	81	21	41	63	60	55	49
48	68	76	72	90	***	63	51	65	99	73	54	98
	37	61	34	59	***	23	37	25	92	61	43	43
49	75	94	107	104	***	55	38	56	63	70	74	79
	51	57	53	54	***	39	16	30	54	54	53	34
Paint - Water, Yellow (90 sec)												
44	75	93	88	127	***	69	54	73	98	80	70	118
	41	53	55	29	***	11	14	22	59	67	58	23

TABLE 16. Reflectivity Data for Unbeaded Paint and Thermoplastic Transverse Lines on Asphalt Pavement (Alabama)(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990
Paint - Polyester, White (90 sec)												
23	93	132	124	190	***	175	159	168	169	101	196	252
	42	58	43	32	***	11	20	24	219	105	101	50
Paint - Polyester, White (30 min)												
21	95	103	89	134	***	187	123	138	229	92	99	240
	43	61	60	205	***	130	20	82	132	89	101	37
Paint - Polyester, Yellow (90 sec)												
24	90	78	74	134	***	198	204	116	287	205	150	200
	37	61	52	36	***	8	12	24	28	14	174	88
Paint - Polyester, Yellow (30 min)												
22	91	88	82	130	***	95	143	86	191	84	87	166
	38	59	60	152	***	131	64	59	83	54	170	36
Thermoplastic - White, Alkyd												
47	78	119	114	165	***	153	51	112	126	181	168	202
	43	117	111	128	***	84	25	103	114	131	127	134
60	63	90	80	230	***	171	67	196	173	207	230	218
	37	81	79	190	***	109	37	156	152	164	144	166
Thermoplastic - White, Hydrocarbon												
35	137	93	87	190	***	150	67	149	144	158	137	210
	42	98	92	133	***	106	66	129	158	180	140	177
58	76	92	84	265	***	218	70	193	222	251	230	285
	37	50	46	85	***	109	45	238	220	190	200	199
Methacrylate - White												
31	134	101	96	116	***	104	91	86	93	109	74	207
	78	104	100	110	***	76	27	93	110	116	95	159
32	146	122	102	154	***	105	38	83	92	123	125	180
	132	107	98	103	***	65	19	120	92	119	85	112
Thermoplastic - Yellow, Alkyd												
46	65	73	70	166	***	103	56	81	102	119	76	151
	37	69	65	92	***	67	19	78	80	101	81	89
59	70	95	92	191	***	147	107	120	149	160	140	217
	36	72	80	90	***	59	65	159	102	130	86	130
Thermoplastic - Yellow, Hydrocarbon												
34	122	97	95	175	***	136	64	97	120	114	91	185
	33	84	88	80	***	100	48	86	96	100	97	117
57	68	120	115	133	***	118	51	98	95	124	113	144
	43	70	69	107	***	75	66	123	110	158	109	116
Preformed Thermoplastic, White												
1	138	127	121	187	***	172	46	129	123	144	139	186
	74	121	116	180	***	134	20	138	153	164	144	151

* Millicandelas per square foot per footcandle.

** Top number is wheel track measurement and bottom number is centerline measurements.

*** Data not available.

TABLE 17. Reflectivity Data for Unbeaded Paint and Thermoplastic Transverse Lines on Portland Cement Concrete Pavement (Kentucky)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, White (60 sec)												
4**	85	51	68	51	55	48	38	48	55	63	59	55
	91	55	61	55	58	53	47	29	56	64	48	62
6	69	38	55	40	57	54	38	44	54	65	60	62
	66	48	47	45	55	48	48	44	51	65	64	60
8	71	39	48	46	57	47	44	49	57	63	56	49
	81	55	57	53	73	59	46	52	57	73	54	67
10	63	39	45	51	67	49	42	52	52	59	40	49
	69	49	56	56	59	59	54	56	60	70	61	65
41	43	36	35	48	70	58	40	40	52	63	52	57
	56	47	47	52	55	57	46	46	59	64	57	64
43	45	47	44	43	41	50	30	38	54	50	46	51
	68	49	49	51	66	50	42	48	49	62	50	60
50	59	47	51	52	54	62	49	44	55	72	53	62
	60	45	49	50	53	57	50	45	54	64	50	59
Paint - Solvent, White (3 min or more)												
2	52	44	57	51	56	53	38	48	55	62	52	79
	58	45	49	59	82	66	53	48	56	62	59	71
12	50	45	43	61	58	51	62	59	54	61	52	60
	63	57	38	54	65	61	56	68	70	77	62	78
Paint - Solvent, Yellow (60 sec)												
5	43	35	33	42	41	38	33	37	41	46	39	45
	54	45	46	51	44	53	42	39	51	53	44	49
7	40	37	31	42	44	46	26	33	41	48	36	50
	66	48	49	47	50	51	39	39	46	59	40	47
9	59	37	38	42	43	48	54	40	48	52	42	50
	54	43	47	48	52	57	38	40	45	58	60	52
11	49	42	40	41	47	50	34	40	43	56	39	48
	78	49	67	46	48	43	54	42	46	55	43	54
40	45	50	45	50	67	51	45	29	53	57	49	62
	56	49	66	60	64	56	51	49	53	66	64	62
42	37	48	47	51	62	39	60	29	35	44	39	40
	46	44	44	44	45	45	40	36	40	51	52	54
52	50	29	48	35	37	35	37	29	45	50	40	46
	49	32	34	34	41	37	34	30	45	48	34	42
53	46	30	27	51	34	41	29	27	33	42	32	38
	45	33	32	41	36	37	29	29	37	43	39	45

TABLE 17. Reflectivity Data for Unbeaded Paint and Thermoplastic Transverse Lines on Portland Cement Concrete Pavement (Kentucky)
(continued)

REFLECTIVITY MEASUREMENT*												
SAMPLE NUMBER	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, Yellow (3 min or more)												
3	40	37	34	40	54	52	58	30	50	53	47	59
	50	41	45	43	58	53	43	38	50	58	38	49
13	39	52	37	47	54	43	32	46	44	60	48	54
	46	36	49	46	49	52	47	53	49	64	48	65
Paint - Water, White (60 sec)												
14	61	57	74	53	49	59	49	34	37	47	47	51
	53	48	58	51	53	55	57	48	47	66	65	58
16	60	45	49	39	56	51	68	37	42	49	45	56
	59	53	58	52	62	59	68	49	61	60	62	66
51	41	33	38	34	47	44	27	28	34	43	36	43
	53	45	44	45	45	58	38	38	41	52	44	46
Paint - Water, White (90 sec)												
19	46	42	57	57	44	41	30	32	35	43	38	40
	60	52	60	57	59	56	49	54	58	62	60	58
45	40	52	40	44	42	48	26	30	33	41	36	49
	56	51	60	52	55	51	54	45	68	67	65	69
Paint - Water, Yellow (60 sec)												
15	42	43	49	47	50	52	62	32	33	54	39	38
	46	44	46	48	56	46	43	44	47	60	44	49
17	44	40	49	45	58	45	44	31	38	42	37	45
	50	49	57	45	62	45	49	42	42	58	42	51
18	39	38	53	39	39	40	40	23	35	44	34	40
	40	34	41	42	44	46	33	33	39	46	34	42
20	46	43	69	45	72	57	62	36	39	47	40	50
	47	40	45	43	64	63	40	37	39	49	42	44
25	39	46	42	36	46	54	29	26	38	39	43	39
	33	43	41	33	40	46	49	30	40	44	37	39
26	36	43	34	38	47	35	49	26	36	51	34	35
	42	31	36	36	46	38	30	35	44	55	34	47
48	36	30	30	29	30	30	19	22	36	39	42	40
	48	36	35	40	39	47	31	28	43	43	43	58
49	53	39	65	40	49	39	40	22	41	35	36	38
	60	45	50	38	47	46	46	37	46	49	40	54
Paint - Water, Yellow (90 sec)												
44	34	32	43	33	50	56	30	24	28	54	37	47
	54	38	46	50	42	66	51	32	48	60	52	53

TABLE 17. Reflectivity Data for Unbeaded Paint and Thermoplastic Transverse Lines on Portland Cement Concrete Pavement (Kentucky)
(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Polyester, White (90 sec)												
23	54	26	90	30	---	---	---	---	---	---	---	---
	39	23	50	36	47	51	38	41	39	51	35	59
Paint - Polyester, White (30 min)												
21	56	66	42	54	38	90	43	37	45	61	43	76
	55	87	50	49	67	40	53	37	61	60	58	70
Paint - Polyester, Yellow (90 sec)												
24	46	27	43	38	---	---	---	---	---	---	---	---
	52	26	35	34	58	56	41	26	68	80	30	35
Paint - Polyester, Yellow (30 min)												
22	90	47	52	41	46	41	30	24	35	44	32	50
	65	53	61	63	60	31	37	24	44	58	34	54
Thermoplastic - White, Alkyd												
47	119	92	65	96	89	75	130	120	169	174	198	194
	83	70	73	85	85	126	98	87	118	112	123	192
60	135	84	110	110	136	137	144	195	242	267	265	294
	127	90	108	125	142	160	143	224	256	292	265	235
Thermoplastic - White, Hydrocarbon												
35	69	63	76	81	101	121	102	158	155	173	173	168
	65	50	69	66	80	93	97	133	166	161	179	209
58	69	66	107	73	96	123	135	206	232	257	255	276
	61	77	113	71	106	115	98	226	217	249	239	287
Methacrylate - White												
31***	---	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	---
32	102	130	133	115	122	106	105	109	106	119	110	120
	169	140	145	135	127	127	120	132	148	141	122	126
Thermoplastic - Yellow, Alkyd												
46	113	72	61	52	70	53	68	47	63	76	88	96
	118	51	56	48	64	63	109	45	63	63	78	70
59	69	66	107	73	96	123	135	206	232	257	255	276
	80	59	82	70	73	85	72	96	97	117	118	142
Thermoplastic - Yellow, Hydrocarbon												
34	118	79	47	48	82	63	53	82	107	123	110	141
	95	44	54	40	53	48	43	71	70	81	87	108
57	82	66	63	74	85	95	95	125	111	121	114	116
	78	50	43	80	77	99	100	132	124	151	135	160
Preformed Thermoplastic, White												
1	65	21	133	140	153	142	162	151	168	172	163	164
	136	30	124	133	160	163	152	171	175	183	190	204

* Millicandelas per square foot per footcandle.

** Top number is wheel track measurement and bottom number is centerline measurements.

*** White methacrylate #31 was not applied on the PCC pavement.

TABLE 18. Reflectivity Data for Unbeaded Paint and Thermoplastic Transverse Lines on Portland Cement Concrete Pavement (Alabama)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990
Paint - Solvent, White (60 sec)												
4**	109	145	125	94	95	110	77	96	89	105	94	103
	129	119	139	129	98	114	93	109	94	102	97	98
6	119	143	124	92	84	114	74	90	92	100	92	102
	142	110	136	113	86	106	102	91	111	98	91	95
8	115	139	128	102	120	109	104	98	109	110	103	106
	121	90	117	106	82	90	86	99	89	93	81	93
10	102	133	122	102	84	109	79	97	99	89	88	98
	112	96	114	100	79	106	79	99	84	87	86	93
41	93	131	124	89	100	107	90	86	106	107	59	103
	86	123	117	103	99	119	88	84	96	111	74	104
43	95	158	124	70	72	90	74	65	82	68	51	84
	70	114	97	90	86	98	81	72	93	99	61	83
50	104	120	122	101	105	116	100	96	106	102	78	108
	93	114	111	100	106	105	90	94	95	100	69	95
Paint - Solvent, White (3 min or more)												
2	63	113	116	79	80	108	66	71	92	90	79	82
	61	92	98	94	92	86	82	80	82	77	85	101
12	49	112	117	100	128	101	91	90	93	96	81	108
	72	94	93	66	83	114	81	81	83	87	94	96
Paint - Solvent, Yellow (60 sec)												
5	72	115	108	54	61	75	66	65	66	71	50	78
	92	98	90	81	76	81	60	84	71	71	47	82
7	69	119	111	57	62	76	58	65	67	72	44	72
	94	70	85	86	91	95	82	87	62	92	76	83
9	84	101	104	78	79	96	69	80	86	120	79	89
	90	89	95	94	79	98	65	82	79	97	60	78
11	89	116	102	73	84	94	71	77	89	82	75	102
	89	88	81	92	84	91	76	78	82	80	78	84
40	71	102	111	82	86	98	84	85	86	88	66	86
	83	107	80	88	102	82	98	85	87	84	78	95
42	74	112	94	67	76	82	61	62	76	77	54	78
	75	86	77	82	98	76	91	91	82	68	77	84
52	118	126	111	74	86	91	77	73	88	78	50	84
	55	184	76	81	90	96	65	69	70	86	48	89
53	89	133	99	75	82	96	69	69	82	80	51	94
	65	72	99	76	78	68	70	59	74	63	26	73

TABLE 18. Reflectivity Data for Unbeaded Paint and Thermoplastic Transverse Lines on Portland Cement Concrete Pavement (Alabama)
(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990
Paint - Solvent, Yellow (3 min or more)												
3	48	115	94	119	120	102	88	69	108	67	70	69
	61	57	73	53	68	69	59	70	67	73	86	84
13	69	113	122	60	55	78	65	75	75	81	54	79
	81	92	104	82	80	85	67	84	68	84	48	85
Paint - Water, White (60 sec)												
14	88	148	108	114	90	113	103	109	113	125	101	130
	57	77	115	105	112	101	72	98	69	79	48	108
16	128	146	130	118	104	136	115	111	133	122	112	136
	120	112	110	100	110	139	86	102	170	94	66	102
51	92	138	110	85	83	95	78	73	82	77	60	78
	93	110	98	84	94	108	96	74	90	90	55	73
Paint - Water, White (90 sec)												
19	115	148	125	98	86	102	96	89	107	110	74	120
	98	108	122	98	107	122	83	77	117	103	62	99
45	83	138	126	88	77	113	93	93	102	103	68	93
	47	106	115	103	114	79	66	88	84	79	81	77
Paint - Water, Yellow (60 sec)												
15	97	122	130	90	101	106	94	92	99	100	70	93
	104	105	116	96	106	101	86	82	95	98	66	94
17	96	140	153	94	136	109	98	86	103	105	79	90
	99	113	124	89	96	115	98	76	95	96	69	96
18	86	117	151	136	175	107	94	87	92	95	66	92
	75	82	100	78	93	87	85	80	87	88	57	80
20	94	116	90	87	85	96	76	88	93	87	56	91
	82	70	102	88	96	76	60	81	65	64	60	93
25	56	133	97	66	61	88	65	71	72	73	40	67
	54	79	98	78	75	135	65	75	66	85	60	76
26	90	93	93	66	85	88	80	76	85	80	52	83
	93	81	100	64	80	89	79	69	85	77	58	74
48	63	110	94	72	81	87	74	71	76	77	46	67
	50	77	95	63	89	78	62	63	70	62	33	71
49	85	105	120	81	59	90	77	63	79	76	54	78
	73	103	99	76	102	99	87	66	91	90	60	87
Paint - Water, Yellow (90 sec)												
44	100	118	108	82	89	100	90	73	83	82	63	88
	65	109	105	84	99	102	97	67	92	90	63	83

TABLE 18. Reflectivity Data for Unbeaded Paint and Thermoplastic Transverse Lines on Portland Cement Concrete Pavement (Alabama)
(continued)

SAMPLE NUMBER	REFLECTIVITY MEASUREMENT*											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990
Paint - Polyester, White (90 sec)												
23	64	137	94	56	90	63	58	56	60	67	33	62
	64	119	89	66	77	72	55	51	63	60	27	55
Paint - Polyester, White (30 min)												
21	50	146	147	54	68	70	65	62	68	71	37	68
	73	71	95	82	73	120	84	86	81	77	72	89
Paint - Polyester, Yellow (90 sec)												
24	48	86	83	50	60	67	54	47	60	80	39	62
	45	81	61	46	55	50	45	41	46	53	33	54
Paint - Polyester, Yellow (30 min)												
22	50	96	94	112	177	74	66	110	109	95	50	61
	72	76	60	65	70	122	60	97	88	78	47	101
Thermoplastic - White, Alkyd												
47	58	75	89	129	179	245	128	151	142	185	128	156
	71	81	110	110	105	270	107	97	125	187	88	142
60	80	123	105	79	290	140	262	198	188	182	158	235
	88	136	135	172	117	134	135	198	180	156	133	205
Thermoplastic - White, Hydrocarbon												
35	62	79	163	123	154	215	188	171	193	219	155	215
	58	86	93	104	128	169	166	165	183	201	168	252
58	56	64	127	113	103	179	198	194	245	257	218	278
	74	59	79	45	102	99	90	154	97	119	151	212
Methacrylate - White												
31	160	180	145	169	303	145	171	131	230	213	148	136
	135	173	145	142	212	162	164	131	185	170	120	169
32	122	136	108	124	207	102	128	99	134	142	220	109
	132	124	125	110	222	125	120	127	131	148	133	134
Thermoplastic - Yellow, Alkyd												
46	55	74	78	58	162	160	97	100	88	79	94	108
	62	82	105	65	93	117	72	75	77	88	63	101
59	57	88	69	60	86	104	90	154	87	111	78	129
	74	80	83	107	176	101	86	100	93	138	80	142
Thermoplastic - Yellow, Hydrocarbon												
34	51	57	85	99	87	120	86	92	100	115	73	113
	70	61	67	55	72	88	91	175	99	110	75	144
57	100	145	95	121	97	145	120	114	114	127	91	134
	91	96	92	143	98	114	115	250	122	138	115	158
Preformed Thermoplastic, White												
1	117	133	150	147	153	187	159	161	172	178	150	182
	133	156	139	143	160	209	151	162	201	204	163	194

* Millicandelas per square foot per footcandle.

** Top number is wheel track measurement and bottom number is centerline measurements.

TABLE 19. Reflectivity Data for Removable Tape Lines on Asphalt Pavement (Kentucky)

		REFLECTIVITY MEASUREMENT						
SAMPLE NUMBER		JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	DEC 1989
Removable Tape, White								
29	T-LW*	848	470	541	405	120	94	78
	T-C**	802	765	586	453	219	204	144
	L***	791	764	758	741	709	685	538
38	T-LW	882	725	670	560	347	313	242
	T-C	873	785	797	799	646	613	504
	L	839	875	971	914	843	879	619
54	T-LW	806	625	568	565	508	397	376
	T-C	789	769	739	739	732	747	708
	L	771	751	752	763	703	793	686
Removable Tape, Yellow								
28	T-LW	661	606	532	448	329	230	248
	T-C	636	628	602	543	378	372	232
	L	672	621	655	649	629	612	459
39	T-LW	574	516	471	370	185	128	99
	T-C	551	544	536	474	359	298	122
	L	538	582	661	587	518	478	302
61	T-LW	549	483	481	442	388	322	276
	T-C	546	560	594	624	564	581	388
	L	561	567	629	634	633	663	518

* Transverse stripe - left wheelpath.

** Transverse stripe - centerline.

*** Longitudinal stripe - centerline.

TABLE 20. Reflectivity Data for Removable Tape Lines on Asphalt Pavement (Alabama)

SAMPLE NUMBER		REFLECTIVITY MEASUREMENT						
		MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989
Removable Tape, White								
29	T-LW*	564	399	261	201	209	173	186
	T-C**	670	728	440	362	332	161	148
	L***	742	811	643	598	655	532	398
38	T-LW	564	501	210	144	156	97	65
	T-C	587	762	426	383	334	336	181
	L	762	997	697	631	665	491	320
54	T-LW	511	479	389	420	299	214	125
	T-C	598	732	526	402	573	414	249
	L	636	801	618	591	692	549	395
Removable Tape, Yellow								
28	T-LW	442	321	272	214	222	No data	173
	T-C	509	480	391	302	334	No data	181
	L	544	664	491	465	544	416	282
39	T-LW	381	328	183	144	150	93	68
	T-C	502	442	223	138	115	87	49
	L	519	694	435	317	317	214	196
61	T-LW	411	369	332	241	230	159	147
	T-C	517	620	381	420	437	318	292
	L	508	648	499	441	523	367	270

* Transverse stripe - left wheelpath.

** Transverse stripe - centerline.

*** Longitudinal stripe - centerline.

TABLE 21. Reflectivity Data for Removable Tape Lines on Portland Cement Concrete Pavement (

		REFLECTIVITY MEASUREMENT						
SAMPLE NUMBER		JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	DEC 1989
Removable Tape, White								
29	T-LW*	778	465	243	167	121	90	93
	T-C**	748	648	569	346	314	248	160
	L***	742	726	691	687	686	669	558
38	T-LW	854	853	667	510	275	186	162
	T-C	830	874	806	827	776	765	689
	L	855	925	963	978	962	920	671
54	T-LW	771	681	557	500	480	404	347
	T-C	732	809	724	727	715	694	790
	L	770	861	878	863	855	817	722
Removable Tape, Yellow								
28	T-LW	640	584	351	355	249	164	118
	T-C	617	637	573	498	437	360	364
	L	623	631	623	624	621	586	527
39	T-LW	544	596	432	300	135	103	91
	T-C	523	593	444	341	235	124	93
	L	549	663	630	582	571	489	363
61	T-LW	547	547	448	373	320	264	221
	T-C	515	613	581	569	498	471	459
	L	561	633	613	601	592	594	478

* Transverse stripe - left wheelpath.

** Transverse stripe - centerline.

*** Longitudinal stripe - centerline.

TABLE 22. Reflectivity Data for Removable Tape Lines on Portland Cement Concrete Pavement (

		REFLECTIVITY MEASUREMENT						
SAMPLE NUMBER		MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989
Removable Tape, White								
29	T-LW*	788	682	492	393	324	317	201
	T-C**	863	769	783	574	640	684	380
	L***	717	907	818	860	866	897	423
38	T-LW	757	681	364	246	267	163	116
	T-C	782	680	758	563	474	634	328
	L	932	924	920	652	697	354	245
54	T-LW	611	563	449	363	401	357	210
	T-C	674	531	684	514	599	525	342
	L	660	641	676	577	622	597	346
Removable Tape, Yellow								
28	T-LW	465	502	340	276	300	243	216
	T-C	525	514	501	386	386	425	318
	L	651	713	656	543	602	560	397
39	T-LW	555	472	339	223	169	148	119
	T-C	655	517	508	252	272	259	246
	L	662	668	623	472	490	452	353
61	T-LW	466	485	348	244	287	334	185
	T-C	506	454	584	460	470	482	290
	L	606	584	636	488	527	564	323

* Transverse stripe - left wheelpath.

** Transverse stripe - centerline.

*** Longitudinal stripe - centerline.

TABLE 23. Durability Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Kentucky)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, White (60 sec)												
4	10.0	9.6	10.0	10.0	9.9	9.9	9.9	9.2	8.7	8.7	8.3	8.0
6	10.0	9.8	10.0	10.0	10.0	10.0	10.0	9.3	9.2	9.1	8.9	9.0
8	9.9	9.7	10.0	10.0	9.9	9.9	9.6	8.7	8.3	8.3	7.5	7.3
10	10.0	9.6	10.0	10.0	10.0	9.9	9.5	8.2	7.8	7.9	7.2	7.0
41	10.0	8.7	9.9	10.0	10.0	10.0	9.4	7.3	6.8	7.4	6.3	6.2
43	10.0	9.5	9.9	10.0	10.0	10.0	9.0	7.0	6.5	7.1	5.9	5.8
50	10.0	9.7	10.0	10.0	10.0	10.0	9.7	8.8	7.8	8.1	7.5	7.3
Paint - Solvent, White (3 min or more)												
2	10.0	9.8	10.0	10.0	10.0	10.0	9.8	9.7	9.5	9.5	9.4	9.4
12	10.0	9.5	9.9	10.0	10.0	10.0	10.0	9.5	9.3	9.4	9.2	9.3
Paint - Solvent, Yellow (60 sec)												
5	10.0	9.8	9.9	10.0	10.0	10.0	9.5	9.2	9.4	9.1	8.6	8.1
7	10.0	9.8	9.9	10.0	10.0	10.0	10.0	9.3	9.2	9.1	8.6	8.4
9	10.0	9.7	9.9	10.0	10.0	10.0	10.0	9.3	8.8	8.6	7.6	7.7
11	10.0	9.7	9.9	10.0	10.0	10.0	9.9	9.0	8.8	8.3	6.9	6.8
40	10.0	9.8	9.9	10.0	10.0	10.0	9.9	8.9	8.4	8.3	7.4	7.2
42	10.0	9.8	9.9	10.0	10.0	9.9	9.4	7.5	7.0	7.2	6.0	5.7
52	10.0	9.8	10.0	10.0	10.0	10.0	9.9	8.8	8.3	8.2	7.3	7.1
53	10.0	9.8	10.0	10.0	10.0	10.0	9.9	9.0	8.6	8.4	7.8	7.4
Paint - Solvent, Yellow (3 min or more)												
3	10.0	9.8	9.9	10.0	10.0	10.0	10.0	9.5	9.3	9.3	9.1	8.9
13	10.0	9.8	9.9	10.0	10.0	10.0	10.0	9.3	9.3	9.2	8.9	8.6
Paint - Water, White (60 sec)												
14	10.0	9.8	9.9	10.0	10.0	10.0	10.0	9.6	9.5	9.6	9.5	9.5
16	10.0	9.7	9.9	10.0	10.0	10.0	10.0	9.6	9.3	9.2	9.2	9.0
51	9.6	9.3	9.4	9.5	9.2	9.1	9.2	8.3	7.8	7.8	7.5	7.6
Paint - Water, White (90 sec)												
19	10.0	9.7	9.9	10.0	10.0	10.0	10.0	9.5	9.3	9.3	9.2	9.0
45	10.0	9.7	9.9	10.0	10.0	10.0	10.0	9.6	9.4	9.3	9.3	9.0
Paint - Water, Yellow (60 sec)												
15	10.0	9.8	10.0	10.0	10.0	9.9	10.0	9.5	9.5	9.6	9.7	9.5
17	10.0	9.8	10.0	10.0	10.0	10.0	9.9	9.3	9.3	9.1	8.9	8.8
18	9.5	9.2	8.9	8.8	8.7	8.7	9.0	8.6	8.2	8.1	8.0	7.7
20	10.0	9.8	10.0	10.0	10.0	10.0	9.9	9.3	9.2	8.9	8.8	8.8
25	9.5	9.2	9.2	9.2	9.1	9.3	9.6	9.3	9.2	8.9	8.8	8.6
26	9.5	9.4	9.3	9.1	9.1	9.1	9.5	9.0	8.8	8.5	8.7	8.5
48	9.6	9.4	9.4	9.3	9.1	9.1	9.3	8.5	8.0	7.9	7.8	7.8
49	9.8	9.6	9.6	9.5	9.3	9.4	9.6	8.8	8.3	8.1	8.1	7.9
Paint - Water, Yellow (90 sec)												
44	9.6	9.6	9.6	9.6	9.5	9.5	9.6	9.3	9.1	8.8	8.9	8.6
Paint - Polyester, White (90 sec)												
23	10.0	9.7	10.0	10.0	10.0	10.0	10.0	9.9	10.0	9.8	9.8	9.8
Paint - Polyester, White (30 min)												
21	10.0	9.7	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.7	10.0	9.8

TABLE 23. Durability Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Kentucky)
(continued)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Polyester, Yellow (90 sec)												
24	10.0	9.7	10.0	10.0	10.0	10.0	10.0	9.9	9.8	9.7	9.8	9.8
Paint - Polyester, Yellow (30 min)												
22	10.0	9.8	9.8	9.8	10.0	9.6	9.6	9.5	9.6	9.3	9.5	9.3
Thermoplastic - White, Alkyd												
47	10.0	9.9	10.0	10.0	10.0	10.0	9.4	9.4	9.3	9.4	9.5	9.4
60	10.0	9.8	10.0	10.0	10.0	10.0	9.1	9.0	9.3	9.3	9.4	9.2
Thermoplastic - White, Hydrocarbon												
35	9.9	9.7	10.0	9.9	9.9	9.9	9.4	9.5	9.7	9.5	9.5	9.5
58	10.0	9.7	10.0	10.0	10.0	10.0	9.6	9.6	9.7	9.7	9.7	9.7
Methacrylate - White												
31	10.0	9.9	10.0	10.0	10.0	10.0	10.0	9.9	10.0	10.0	10.0	10.0
32	10.0	9.9	10.0	10.0	10.0	10.0	9.9	9.8	9.9	9.9	9.9	9.9
Thermoplastic - Yellow, Alkyd												
46	10.0	9.9	10.0	10.0	10.0	10.0	9.2	9.0	9.3	9.3	9.5	9.5
59	10.0	9.9	10.0	10.0	10.0	10.0	9.1	8.9	9.2	9.3	9.3	9.2
Thermoplastic - Yellow, Hydrocarbon												
34	10.0	9.9	10.0	10.0	10.0	10.0	9.2	9.3	9.7	9.5	9.7	9.7
57	9.8	9.8	10.0	9.9	9.9	9.9	9.4	9.5	9.5	9.5	9.5	9.5
Preformed Thermoplastic, White												
1	10.0	9.7	10.0	10.0	10.0	10.0	9.5	9.4	9.6	9.6	9.6	9.6
Permanent Tape, White												
37	10.0	9.7	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
55	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
62	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Temporary Tape, White												
30	10.0	9.6	10.0	10.0	10.0	10.0	10.0	9.8	9.9	9.8	9.8	9.3
Permanent Tape, Yellow												
36	10.0	9.9	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
56	10.0	9.9	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Temporary Tape, Yellow												
27	10.0	9.6	9.7	9.3	9.3	8.8	9.2	8.8	8.4	8.2	8.7	8.5

TABLE 24. Durability Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Alabama)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990
Paint - Solvent, White (60 sec)												
4	10.0	9.9	9.5	9.4	8.5	8.3	7.7	7.2	7.3	6.8	6.3	6.4
6	10.0	9.9	9.4	9.2	8.3	8.8	7.5	6.9	7.0	6.2	5.9	5.7
8	10.0	10.0	9.5	9.2	8.6	8.8	7.5	6.9	6.9	6.2	6.0	5.7
10	10.0	9.7	9.0	8.8	8.3	8.3	7.0	6.6	6.7	5.8	5.4	5.3
41	10.0	9.9	9.7	9.3	8.7	8.8	8.2	8.0	7.9	7.5	7.2	7.0
43	10.0	9.9	9.6	9.3	8.4	8.8	8.0	7.8	7.8	6.9	6.3	6.4
50	10.0	10.0	9.8	9.3	8.6	8.8	8.3	8.0	7.8	7.4	6.8	5.8
Paint - Solvent, White (3 min or more)												
2	10.0	10.0	9.7	9.3	8.7	8.8	8.3	8.2	8.3	7.8	7.4	7.3
12	10.0	10.0	9.7	9.5	8.3	8.8	7.8	7.8	8.0	7.8	7.3	7.0
Paint - Solvent, Yellow (60 sec)												
5	10.0	10.0	9.7	9.5	9.0	9.0	8.3	8.3	8.4	8.0	7.2	7.4
7	10.0	10.0	9.7	9.6	9.0	9.0	8.3	8.3	8.5	8.2	7.6	7.7
9	10.0	9.9	9.6	9.3	8.8	9.0	8.3	8.0	8.3	7.7	7.1	6.8
11	10.0	10.0	9.6	9.3	8.8	9.0	8.3	8.0	8.3	7.5	6.9	6.8
40	10.0	10.0	9.7	9.5	9.0	9.0	8.8	8.6	8.9	8.3	8.0	7.8
42	10.0	9.9	9.7	10.0	9.0	9.0	8.6	8.4	8.7	7.7	7.2	7.4
52	10.0	9.8	9.8	10.0	9.0	9.0	8.7	8.4	8.8	8.1	7.9	7.8
53	10.0	10.0	9.7	10.0	9.0	9.0	8.7	8.5	8.7	8.3	7.8	7.8
Paint - Solvent, Yellow (3 min or more)												
3	10.0	9.8	9.7	9.5	9.0	9.0	8.3	8.1	8.4	8.2	7.8	7.9
13	10.0	10.0	9.7	9.7	8.7	8.9	8.3	8.3	8.5	7.9	7.7	7.7
Paint - Water, White (60 sec)												
14	10.0	8.9	6.3	6.8	6.3	6.4	6.1	6.5	5.5	5.4	5.0	5.2
16	10.0	9.7	9.5	9.4	8.8	8.6	8.3	7.7	7.7	7.5	7.1	7.2
51	9.9	9.2	7.8	7.8	6.5	7.0	6.9	6.5	6.7	5.9	5.6	5.7
Paint - Water, White (90 sec)												
19	10.0	9.3	9.1	8.7	8.6	8.2	8.1	7.3	7.8	6.9	6.7	7.0
45	10.0	7.8	5.8	5.9	5.3	5.6	6.0	5.3	5.2	4.6	4.7	4.8
Paint - Water, Yellow (60 sec)												
15	10.0	9.4	8.3	7.9	7.5	7.5	7.3	7.3	7.3	6.9	6.6	6.9
17	10.0	9.9	9.6	9.5	8.9	8.9	8.9	8.8	8.8	8.5	8.0	8.0
18	10.0	9.0	8.4	8.2	7.6	7.6	7.3	7.3	7.5	6.8	6.5	7.0
20	10.0	9.1	8.7	8.4	8.3	7.9	7.7	7.3	7.8	7.2	6.8	7.2
25	10.0	8.2	8.1	7.5	6.9	7.3	7.4	7.3	7.4	6.8	6.7	6.8
26	10.0	7.7	7.9	7.3	6.6	6.8	7.0	6.6	6.8	6.5	6.2	6.3
48	10.0	8.3	6.8	6.7	5.8	6.2	6.0	5.8	5.8	5.8	5.0	5.7
49	10.0	8.7	7.1	6.9	6.5	6.4	6.8	6.3	5.9	5.6	5.2	5.5
Paint - Water, Yellow (90 sec)												
44	10.0	7.7	6.9	6.8	5.9	6.2	5.8	5.8	5.9	5.9	5.1	5.7
Paint - Polyester, White (90 sec)												
23	10.0	9.9	9.4	9.4	8.6	8.5	8.3	7.9	8.3	8.0	7.7	7.7
Paint - Polyester, White (30 min)												
21	10.0	9.8	9.6	9.0	8.8	8.6	8.0	7.9	8.3	7.8	7.6	7.6

TABLE 24. Durability Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Alabama)
(continued)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MAR 1990	APRIL 1990
Paint - Polyester, Yellow (90 sec)												
24	10.0	9.9	9.8	8.9	7.7	7.9	7.8	7.7	7.9	7.8	7.8	7.5
Paint - Polyester, Yellow (30 min)												
22	10.0	9.8	9.6	9.4	9.3	9.0	8.4	8.6	8.7	8.5	8.0	8.1
Thermoplastic - White, Alkyd												
47	10.0	10.0	10.0	10.0	9.8	10.0	9.7	10.0	5.9	10.0	10.0	9.9
60	10.0	10.0	10.0	10.0	9.8	10.0	9.7	10.0	10.0	10.0	10.0	10.0
Thermoplastic - White, Hydrocarbon												
35	10.0	10.0	10.0	10.0	9.8	10.0	9.7	10.0	10.0	10.0	10.0	10.0
58	10.0	10.0	10.0	10.0	9.8	10.0	9.7	10.0	10.0	10.0	10.0	10.0
Methacrylate - White												
31	10.0	10.0	10.0	10.0	9.8	10.0	9.7	10.0	10.0	10.0	10.0	10.0
32	10.0	10.0	10.0	9.8	9.8	10.0	9.7	10.0	10.0	10.0	10.0	10.0
Thermoplastic - Yellow, Alkyd												
46	10.0	9.7	10.0	10.0	10.0	10.0	9.7	10.0	5.8	10.0	10.0	9.9
59	10.0	10.0	10.0	10.0	9.8	10.0	9.7	10.0	10.0	10.0	10.0	10.0
Thermoplastic - Yellow, Hydrocarbon												
34	10.0	10.0	10.0	10.0	10.0	10.0	9.7	10.0	10.0	10.0	10.0	10.0
57	10.0	10.0	10.0	10.0	9.8	10.0	9.7	10.0	10.0	10.0	10.0	10.0
Preformed Thermoplastic, White												
1	10.0	9.7	10.0	10.0	9.8	10.0	9.5	10.0	10.0	10.0	10.0	10.0
Permanent Tape, White												
37	10.0	10.0	10.0	9.0	9.7	9.7	9.1	9.3	9.0	9.7	9.7	9.3
55	10.0	10.0	10.0	10.0	9.7	9.8	9.4	10.0	9.7	9.8	9.7	9.7
62	10.0	10.0	10.0	10.0	9.8	10.0	9.7	10.0	9.7	10.0	10.0	9.7
Temporary Tape, White												
30	10.0	9.5	9.4	9.0	8.9	8.6	8.5	7.9	7.9	8.3	7.8	7.7
Permanent Tape, Yellow												
36	10.0	10.0	10.0	9.3	9.7	9.6	9.7	9.3	9.0	9.7	9.7	9.3
56	10.0	10.0	10.0	10.0	9.7	10.0	9.7	10.0	9.7	9.8	10.0	9.7
Temporary Tape, Yellow												
27	10.0	9.5	9.4	9.0	8.9	8.6	8.5	7.8	8.1	8.3	7.8	7.7

TABLE 25. Durability Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Kentucky)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, White (60 sec)												
4	10.0	10.0	9.5	10.0	10.0	10.0	10.0	9.5	9.2	9.3	8.9	8.8
6	10.0	10.0	9.5	10.0	10.0	10.0	10.0	9.4	9.0	9.1	8.8	8.3
8	8.3	10.0	9.6	10.0	10.0	10.0	10.0	9.2	8.5	8.9	8.6	6.8
10	8.5	10.0	9.5	10.0	10.0	10.0	10.0	9.2	8.0	8.3	8.5	6.3
41	10.0	10.0	9.3	9.9	10.0	10.0	10.0	9.5	9.1	9.0	8.7	8.4
43	10.0	10.0	9.4	9.9	10.0	10.0	10.0	9.5	8.9	8.6	8.5	8.4
50	10.0	10.0	9.7	10.0	10.0	10.0	10.0	9.6	9.2	9.3	9.0	8.0
Paint - Solvent, White (3 min or more)												
2	10.0	10.0	9.8	9.9	10.0	10.0	10.0	9.4	9.0	9.1	8.7	8.9
12	10.0	10.0	9.3	9.9	10.0	10.0	10.0	9.7	9.2	9.4	9.0	9.0
Paint - Solvent, Yellow (60 sec)												
5	10.0	10.0	9.5	10.0	10.0	10.0	10.0	9.3	8.7	8.7	7.8	7.5
7	10.0	10.0	9.4	10.0	10.0	10.0	9.9	9.4	8.5	8.5	7.7	7.5
9	10.0	10.0	9.8	9.9	10.0	10.0	9.8	9.3	8.2	8.2	7.3	6.8
11	10.0	10.0	9.4	10.0	10.0	10.0	9.9	9.1	7.6	7.5	6.4	6.0
40	9.5	10.0	9.7	10.0	10.0	10.0	9.9	9.3	8.3	8.3	7.8	7.5
42	10.0	10.0	9.7	10.0	10.0	10.0	9.8	9.3	8.4	8.3	7.6	7.3
52	10.0	10.0	9.8	10.0	10.0	10.0	10.0	9.3	8.1	7.9	7.3	6.6
53	10.0	10.0	9.8	10.0	10.0	10.0	10.0	9.3	8.0	7.8	6.9	6.5
Paint - Solvent, Yellow (3 min or more)												
3	10.0	10.0	9.8	9.9	10.0	10.0	10.0	9.2	8.9	8.8	8.5	8.2
13	10.0	10.0	9.7	9.9	10.0	10.0	10.0	9.5	9.2	9.0	8.3	8.0
Paint - Water, White (60 sec)												
14	10.0	10.0	9.8	9.9	9.4	8.8	8.6	7.0	5.3	5.0	4.6	4.8
16	10.0	10.0	9.9	10.0	10.0	9.7	9.5	8.3	7.0	7.0	6.6	6.5
51	10.0	7.4	7.4	6.6	5.7	5.3	5.1	4.8	3.7	3.1	3.2	2.5
Paint - Water, White (90 sec)												
19	10.0	10.0	9.8	10.0	10.0	9.8	9.5	8.4	7.5	7.5	7.4	7.5
45	10.0	8.9	8.0	8.5	8.4	8.5	8.8	8.2	7.8	7.6	7.7	7.6
Paint - Water, Yellow (60 sec)												
15	10.0	9.8	9.6	9.4	8.9	8.9	9.0	7.3	5.6	5.7	4.9	4.4
17	10.0	9.9	9.8	9.7	9.1	9.2	9.3	8.2	6.4	5.8	5.3	5.0
18	10.0	9.7	9.4	9.4	8.6	8.5	8.6	7.9	6.0	5.8	5.1	5.0
20	10.0	10.0	9.8	9.9	9.2	9.3	9.3	8.4	7.2	7.1	6.6	6.4
25	10.0	9.8	9.7	9.8	9.8	9.5	9.7	8.4	7.2	7.3	6.7	6.1
26	10.0	9.4	9.7	9.7	9.1	9.1	9.4	8.2	6.7	7.0	6.2	5.6
48	10.0	6.9	7.2	5.7	4.7	4.7	4.9	4.0	3.4	3.4	3.2	2.8
49	10.0	6.3	6.5	5.6	4.8	4.3	4.2	3.9	3.5	3.1	3.0	2.9
Paint - Water, Yellow (90 sec)												
44	9.5	8.3	8.2	8.4	8.2	8.3	8.7	8.0	7.0	6.8	6.5	6.6
Paint - Polyester, White (90 sec)												
23	10.0	7.3	5.0	1.3	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Paint - Polyester, White (30 min)												
21	10.0	10.0	9.5	10.0	10.0	9.9	9.7	9.1	8.9	8.8	8.7	8.1

TABLE 25. Durability Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Kentucky)(continued)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Polyester, Yellow (90 sec)												
24	10.0	9.7	8.6	6.0	3.0	2.3	0.9	0.5	0.0	0.1	0.0	0.1
Paint - Polyester, Yellow (30 min)												
22	9.3	9.9	9.6	10.0	10.0	10.0	9.8	9.3	8.6	8.5	8.2	8.3
Thermoplastic - White, Alkyd												
47	10.0	10.0	9.7	10.0	10.0	10.0	9.9	9.8	9.8	9.7	10.0	9.7
60	10.0	10.0	9.7	10.0	10.0	10.0	9.3	9.2	9.3	8.7	8.8	8.7
Thermoplastic - White, Hydrocarbon												
35	10.0	10.0	9.8	10.0	10.0	10.0	10.0	9.9	10.0	10.0	9.7	9.2
58	10.0	10.0	9.4	10.0	10.0	10.0	10.0	9.8	9.9	9.7	8.6	8.5
Methacrylate - White												
31*	---	---	---	---	---	---	---	---	---	---	---	---
32	10.0	9.9	9.4	10.0	10.0	10.0	10.0	9.8	10.0	10.0	10.0	9.9
Thermoplastic - Yellow, Alkyd												
46	10.0	10.0	9.8	10.0	10.0	10.0	9.9	9.8	9.8	9.7	9.8	9.5
59	10.0	10.0	9.7	10.0	10.0	10.0	9.2	9.1	9.2	8.6	8.7	8.6
Thermoplastic - Yellow, Hydrocarbon												
34	10.0	10.0	9.8	10.0	10.0	10.0	10.0	9.8	9.7	9.8	9.8	9.4
57	10.0	10.0	9.6	10.0	10.0	10.0	9.9	9.8	9.7	9.7	9.4	9.1
Preformed Thermoplastic, White												
1	10.0	10.0	9.3	10.0	10.0	10.0	9.6	9.5	9.7	9.3	9.5	9.4
Permanent Tape, White												
37	10.0	10.0	9.3	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
55	10.0	10.0	9.9	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
62	10.0	10.0	9.9	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Temporary Tape, White												
30	10.0	10.0	9.5	10.0	10.0	10.0	9.7	10.0	9.4	9.7	9.2	9.0
Permanent Tape, Yellow												
36	10.0	10.0	9.5	10.0	10.0	10.0	9.9	9.9	10.0	10.0	10.0	10.0
56	10.0	10.0	9.7	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Temporary Tape, Yellow												
27	10.0	10.0	9.7	10.0	9.8	10.0	9.5	9.5	9.0	8.7	8.8	8.4

* White methacrylate #31 was not available for the PCC pavement.

TABLE 26. Durability Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Alabama)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990
Paint - Solvent, White (60 sec)												
4	10.0	10.0	10.0	9.9	9.2	8.6	8.8	8.7	8.3	8.6	8.2	8.1
6	10.0	9.9	10.0	9.8	9.2	8.7	8.8	8.6	8.3	8.3	8.1	7.8
8	10.0	10.0	10.0	9.9	9.3	8.7	8.9	8.7	8.3	8.3	8.1	7.8
10	10.0	10.0	10.0	9.8	9.2	8.4	8.8	7.8	6.0	5.7	5.4	4.9
41	10.0	10.0	10.0	9.8	9.2	8.3	8.9	8.7	8.0	8.0	7.8	7.3
43	10.0	9.9	10.0	9.5	9.2	7.7	8.5	8.4	7.7	7.8	7.3	7.1
50	10.0	9.9	9.8	9.7	9.2	8.0	8.7	8.7	7.8	7.8	7.0	6.8
Paint - Solvent, White (3 min or more)												
2	10.0	10.0	9.9	9.9	9.3	8.7	9.1	8.8	8.8	8.5	8.4	8.0
12	10.0	10.0	10.0	9.2	9.3	8.5	9.0	9.0	8.8	8.7	8.4	8.4
Paint - Solvent, Yellow (60 sec)												
5	10.0	9.9	9.9	9.8	9.2	8.4	9.2	8.6	8.7	8.8	8.4	8.2
7	10.0	10.0	9.9	9.9	9.3	8.7	9.3	8.7	8.8	8.8	8.4	8.2
9	10.0	10.0	10.0	10.0	9.3	8.6	9.3	8.7	8.7	8.8	8.4	8.2
11	10.0	9.9	10.0	9.9	9.2	8.6	9.3	8.6	7.9	7.8	7.3	7.0
40	10.0	9.9	9.9	9.8	9.6	8.5	9.3	9.0	8.7	8.7	8.6	8.6
42	10.0	10.0	10.0	10.0	9.7	8.9	9.3	9.3	8.9	9.0	8.7	8.7
52	10.0	10.0	10.0	10.0	9.8	8.6	9.3	9.3	8.8	8.8	8.8	8.6
53	10.0	10.0	9.8	9.7	9.2	8.0	8.5	8.6	7.8	8.0	7.5	7.1
Paint - Solvent, Yellow (3 min or more)												
3	10.0	10.0	10.0	10.0	9.6	9.0	9.3	9.3	9.1	8.9	8.8	9.0
13	10.0	9.9	9.8	9.8	9.2	8.2	9.1	8.6	8.4	8.8	8.1	8.1
Paint - Water, White (60 sec)												
14	9.9	9.6	9.8	9.8	9.2	8.0	8.7	9.8	8.0	7.7	7.5	7.2
16	9.9	9.7	10.0	9.8	9.2	8.1	8.8	8.7	8.5	8.1	8.1	7.6
51	10.0	9.8	9.3	9.3	8.8	7.7	8.5	8.0	7.3	7.3	7.3	6.9
Paint - Water, White (90 sec)												
19	9.9	9.7	9.7	9.6	9.2	8.1	8.7	8.6	8.2	8.0	7.7	7.2
45	9.9	9.6	9.0	8.9	8.6	7.5	8.7	8.1	7.9	7.5	7.6	7.5
Paint - Water, Yellow (60 sec)												
15	10.0	10.0	10.0	9.9	9.6	9.0	9.4	9.0	8.8	8.8	8.6	8.8
17	10.0	9.9	10.0	10.0	9.3	8.7	9.3	9.3	8.9	9.0	8.7	8.8
18	9.6	9.5	9.6	9.8	9.0	8.3	9.1	8.8	8.7	8.6	8.4	8.5
20	10.0	9.9	10.0	9.8	9.5	8.7	9.3	9.2	8.8	8.7	8.7	8.6
25	9.3	9.2	9.4	9.2	8.7	8.1	8.8	8.1	8.3	8.3	8.2	8.2
26	9.4	9.4	9.4	9.4	9.0	8.2	9.1	8.6	8.5	8.5	8.5	8.5
48	9.8	9.6	9.0	8.7	8.3	7.7	8.3	7.4	7.1	6.6	6.6	6.4
49	9.9	9.6	9.3	9.4	8.9	7.9	8.8	8.4	7.8	7.5	7.5	7.3
Paint - Water, Yellow (90 sec)												
44	9.9	9.6	9.3	9.6	8.9	7.9	8.9	8.6	8.5	8.6	8.2	8.1
Paint - Polyester, White (90 sec)												
23	9.9	9.4	6.6	6.6	4.9	3.8	2.9	2.9	1.3	1.0	1.2	1.1
Paint - Polyester, White (30 min)												
21	10.0	9.8	9.5	7.7	8.6	7.7	8.3	7.6	7.3	6.9	6.3	6.3

TABLE 26. Durability Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Alabama)(continued)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MAR 1990	APRIL 1990
Paint - Polyester, Yellow (90 sec)												
24	9.9	8.8	4.9	4.5	3.0	2.2	9.3	1.1	0.7	0.8	1.1	0.8
Paint - Polyester, Yellow (30 min)												
22	10.0	9.9	9.6	9.4	8.9	8.1	9.2	7.8	7.5	7.3	7.0	6.8
Thermoplastic - White, Alkyd												
47	10.0	10.0	10.0	10.0	10.0	9.6	10.0	10.0	10.0	10.0	10.0	10.0
60	10.0	10.0	10.0	10.0	10.0	9.6	9.8	10.0	10.0	10.0	10.0	10.0
Thermoplastic - White, Hydrocarbon												
35	10.0	10.0	10.0	10.0	10.0	9.6	10.0	10.0	10.0	10.0	10.0	10.0
58	10.0	10.0	10.0	10.0	10.0	9.6	10.0	10.0	10.0	10.0	10.0	10.0
Methacrylate - White												
31	10.0	10.0	10.0	10.0	10.0	9.6	10.0	10.0	10.0	10.0	10.0	10.0
32	10.0	10.0	10.0	10.0	10.0	9.8	10.0	10.0	10.0	10.0	10.0	10.0
Thermoplastic - Yellow, Alkyd												
48	10.0	10.0	10.0	10.0	10.0	9.6	10.0	10.0	10.0	10.0	10.0	10.0
59	10.0	10.0	10.0	10.0	10.0	9.5	10.0	10.0	10.0	10.0	10.0	10.0
Thermoplastic - Yellow, Hydrocarbon												
34	10.0	10.0	10.0	10.0	10.0	9.6	10.0	10.0	10.0	10.0	10.0	10.0
67	10.0	10.0	10.0	10.0	10.0	9.6	10.0	10.0	10.0	10.0	10.0	10.0
Preformed Thermoplastic, White												
1	10.0	10.0	10.0	9.7	10.0	9.2	9.7	10.0	10.0	10.0	10.0	10.0
Permanent Tape, White												
37	10.0	10.0	9.9	9.7	9.7	9.6	9.4	9.8	9.2	9.8	9.7	9.7
65	10.0	10.0	10.0	10.0	9.8	9.7	10.0	10.0	9.8	10.0	10.0	9.7
62	10.0	10.0	10.0	10.0	9.8	9.7	10.0	9.8	9.8	10.0	10.0	10.0
Temporary Tape, White												
30	9.9	9.3	9.3	9.3	9.0	8.4	9.0	8.8	8.3	8.8	8.3	7.9
Permanent Tape, Yellow												
36	10.0	10.0	10.0	9.7	9.7	9.6	9.4	9.8	9.2	9.8	9.7	9.8
66	10.0	10.0	10.0	10.0	9.8	9.7	10.0	9.9	9.8	10.0	10.0	10.0
Temporary Tape, Yellow												
27	9.9	9.3	9.7	9.4	9.0	8.6	9.0	8.8	8.3	9.5	8.3	8.1

TABLE 27. Durability Data for Unbeaded Paint and Thermoplastic Transverse Lines on Asphalt Pavement (Kentucky)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, White (60 sec)												
4	10.0	9.7	10.0	9.8	9.7	9.7	9.7	9.2	9.2	8.9	8.3	8.6
6	10.0	9.7	10.0	10.0	10.0	9.5	9.7	8.8	8.8	8.7	8.3	8.3
8	10.0	9.3	10.0	10.0	10.0	10.0	9.9	9.3	9.3	9.0	8.6	8.3
10	10.0	9.4	9.8	10.0	10.0	9.7	9.7	9.0	8.3	8.3	7.8	8.3
41	10.0	9.6	10.0	9.8	10.0	10.0	9.5	9.2	8.5	8.5	7.8	7.3
43	10.0	9.6	10.0	9.8	10.0	10.0	9.7	8.8	8.2	8.3	7.0	6.9
50	10.0	9.7	10.0	9.8	9.7	9.5	9.7	9.2	8.9	8.7	8.2	8.3
Paint - Solvent, White (3 min or more)												
2	10.0	9.9	10.0	10.0	9.7	10.0	9.6	9.5	9.2	9.3	8.7	8.8
12	10.0	9.7	10.0	9.8	10.0	10.0	9.7	9.5	9.3	9.5	8.8	8.8
Paint - Solvent, Yellow (60 sec)												
5	10.0	9.9	10.0	9.8	10.0	10.0	9.3	9.3	9.3	9.3	8.7	8.5
7	10.0	9.7	10.0	9.7	9.7	9.7	9.5	9.3	9.3	9.3	8.5	8.7
9	10.0	9.7	10.0	9.8	9.7	9.7	9.5	9.3	9.3	9.3	8.5	8.5
11	10.0	9.6	10.0	10.0	10.0	9.8	9.5	9.3	9.1	9.3	8.5	8.3
40	10.0	9.9	10.0	9.8	10.0	9.7	9.6	9.3	9.1	9.3	8.4	8.8
42	10.0	9.9	10.0	9.8	9.7	9.6	9.7	8.9	8.8	9.3	8.0	7.9
52	10.0	9.9	10.0	10.0	9.8	9.5	9.6	9.2	9.0	8.7	8.2	8.2
53	10.0	9.9	10.0	10.0	9.7	9.5	9.6	9.2	9.2	9.2	8.5	8.7
Paint - Solvent, Yellow (3 min or more)												
3	10.0	9.8	10.0	9.8	10.0	10.0	9.7	9.5	9.3	9.5	8.8	9.0
13	10.0	9.8	10.0	9.8	10.0	10.0	9.7	9.5	9.3	9.3	8.7	8.8
Paint - Water, White (60 sec)												
14	10.0	9.9	10.0	9.8	10.0	9.9	9.8	9.3	9.2	9.0	8.6	9.2
16	10.0	9.9	10.0	9.8	9.8	9.7	9.5	9.3	9.2	9.2	8.7	8.7
51	9.8	9.7	10.0	10.0	9.3	8.7	9.4	8.3	7.8	7.5	7.7	7.5
Paint - Water, White (90 sec)												
19	10.0	9.9	10.0	9.8	10.0	9.8	9.5	9.2	8.8	8.8	8.5	8.7
45	9.8	9.7	9.8	9.6	9.6	9.5	9.4	8.8	8.3	8.4	7.9	8.0
Paint - Water, Yellow (60 sec)												
15	10.0	9.9	10.0	10.0	10.0	9.8	9.6	9.2	8.7	8.4	7.9	8.3
17	10.0	9.9	10.0	10.0	10.0	9.7	9.5	9.2	8.7	9.2	8.5	8.8
18	9.8	9.9	9.8	9.9	9.3	9.3	9.3	8.6	7.5	7.3	6.7	7.5
20	10.0	9.9	10.0	10.0	10.0	9.7	9.5	9.3	8.8	9.2	8.7	9.0
25	9.8	9.9	9.8	9.8	9.3	9.3	9.5	8.0	7.2	7.5	7.0	7.3
28	9.7	9.8	9.9	9.6	9.2	9.2	9.0	8.3	7.0	7.3	6.8	7.2
48	9.7	9.7	9.7	9.3	9.2	8.3	8.9	8.5	7.7	7.7	7.0	7.2
49	9.5	9.7	9.5	9.3	9.2	8.5	9.2	8.3	8.0	7.8	7.3	7.2
Paint - Water, Yellow (90 sec)												
44	10.0	9.8	10.0	10.0	9.3	9.3	9.5	8.4	8.0	8.2	7.5	7.8
Paint - Polyester, White (90 sec)												
23	10.0	9.9	9.6	9.5	9.7	9.2	9.7	9.3	9.2	9.0	8.5	9.0
Paint - Polyester, White (30 min)												
21	10.0	10.0	9.8	9.5	9.7	9.5	9.6	9.2	9.2	9.2	8.7	9.2

TABLE 27. Durability Data for Unbeaded Paint and Thermoplastic Transverse Lines on Asphalt Pavement (Kentucky)(continued)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Polyester, Yellow (90 sec)												
24	10.0	9.9	9.8	9.5	9.7	9.5	9.3	9.3	9.0	9.3	8.8	9.3
Paint - Polyester, Yellow (30 min)												
22	10.0	9.9	9.8	9.5	9.5	9.5	9.7	9.5	9.5	9.5	8.8	9.2
Thermoplastic - White, Alkyd												
47	10.0	9.8	10.0	10.0	10.0	10.0	9.5	9.5	9.7	9.7	9.3	9.7
60	9.8	9.7	9.8	9.8	9.8	9.8	8.8	8.5	9.2	9.2	8.8	9.2
Thermoplastic - White, Hydrocarbon												
35	10.0	9.8	10.0	10.0	10.0	10.0	10.0	9.8	10.0	10.0	9.7	10.0
58	10.0	9.8	10.0	10.0	10.0	10.0	9.7	9.8	10.0	9.7	9.7	9.7
Methacrylate - White												
31	10.0	9.9	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.7	10.0
32	10.0	9.9	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.7	10.0
Thermoplastic - Yellow, Alkyd												
46	10.0	9.8	10.0	10.0	10.0	10.0	9.2	9.4	9.5	9.5	9.3	9.3
59	10.0	9.8	10.0	10.0	10.0	10.0	8.7	8.1	9.2	9.3	9.0	9.0
Thermoplastic - Yellow, Hydrocarbon												
34	10.0	9.8	10.0	10.0	10.0	10.0	10.0	9.8	9.8	9.7	9.7	9.7
57	10.0	9.8	10.0	10.0	10.0	10.0	9.5	9.8	10.0	9.7	9.7	9.7
Preformed Thermoplastic, White												
1	10.0	9.7	10.0	10.0	10.0	10.0	9.5	9.5	9.7	9.7	9.3	9.7

TABLE 28. Durability Data for Unbeaded Paint and Thermoplastic Transverse Lines on Asphalt Pavement (Alabama)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MAR 1990	APRIL 1990
Paint - Solvent, White (60 sec)												
4	10.0	9.7	9.0	9.7	9.0	8.7	8.3	8.0	7.2	7.2	6.5	6.3
6	10.0	9.8	8.9	8.8	8.7	8.3	7.8	7.7	6.8	6.3	6.7	6.3
8	10.0	9.8	9.1	9.3	8.7	8.3	7.7	7.8	7.3	7.0	6.7	6.5
10	10.0	9.8	8.9	9.2	8.3	8.3	7.3	7.5	7.2	6.5	6.2	6.3
41	10.0	10.0	9.3	9.3	9.3	9.0	8.2	7.3	7.3	7.3	7.0	7.2
43	10.0	10.0	9.3	9.5	9.0	8.7	8.2	7.3	7.8	8.0	7.0	7.0
50	10.0	10.0	9.5	9.7	9.3	9.2	8.3	8.5	8.3	8.5	7.8	8.0
Paint - Solvent, White (3 min or more)												
2	10.0	10.0	9.1	8.5	8.5	8.3	7.7	7.8	7.5	7.0	7.0	6.7
12	10.0	10.0	9.3	9.3	9.0	9.0	8.0	8.0	7.7	7.7	7.0	7.0
Paint - Solvent, Yellow (60 sec)												
5	10.0	9.8	9.3	9.2	8.8	8.8	7.8	8.2	8.2	7.8	6.8	7.2
7	10.0	10.0	9.2	9.2	8.8	8.3	7.8	8.2	8.2	7.8	6.8	7.2
9	10.0	9.8	9.1	9.3	9.0	8.3	7.8	8.2	8.2	7.8	7.3	7.3
11	10.0	9.8	8.9	9.0	8.8	8.3	8.2	8.0	8.2	7.8	7.3	7.2
40	10.0	10.0	9.3	9.0	9.0	9.0	8.2	8.2	7.8	7.3	7.2	7.2
42	10.0	10.0	9.3	9.5	9.0	9.0	8.5	8.8	8.7	8.2	8.0	7.5
52	10.0	10.0	9.3	9.7	9.2	9.2	8.5	8.8	9.0	8.3	8.3	8.2
53	10.0	10.0	9.3	9.5	9.3	9.0	8.5	9.0	8.8	8.7	8.3	8.3
Paint - Solvent, Yellow (3 min or more)												
3	10.0	9.8	9.3	9.3	9.0	8.8	8.2	8.0	7.0	7.7	7.2	7.5
13	10.0	10.0	9.3	9.3	9.0	9.0	8.3	8.0	8.2	8.0	7.3	7.7
Paint - Water, White (60 sec)												
14	10.0	9.6	6.5	6.0	5.8	4.7	5.0	4.7	3.8	3.7	3.2	3.5
16	10.0	10.0	9.1	8.5	7.8	7.8	7.5	6.8	5.3	6.0	4.5	5.2
51	10.0	9.0	6.5	6.0	5.5	4.7	4.5	5.3	5.0	4.5	3.7	3.7
Paint - Water, White (90 sec)												
19	10.0	9.8	9.1	8.7	8.5	8.0	7.8	7.2	6.2	6.0	5.3	6.5
45	10.0	7.0	6.0	5.2	5.0	4.2	3.8	5.0	4.0	3.3	3.3	3.5
Paint - Water, Yellow (60 sec)												
15	10.0	8.9	8.5	6.3	5.2	3.8	4.8	4.0	4.2	4.2	3.3	3.5
17	10.0	9.7	8.6	7.8	8.0	7.2	7.3	7.0	5.7	6.7	6.0	6.3
18	10.0	9.5	7.0	6.5	6.2	6.2	5.3	5.0	4.8	6.0	4.3	4.3
20	10.0	8.3	4.1	5.5	5.5	4.8	4.5	4.8	4.7	5.3	4.2	4.2
25	10.0	7.9	4.8	4.7	4.3	3.3	3.5	3.7	3.5	3.2	3.3	3.2
26	10.0	7.6	5.1	5.0	4.5	3.3	3.5	3.8	3.5	3.7	3.0	3.2
48	10.0	8.7	7.1	6.3	5.7	5.2	5.5	4.3	4.2	4.0	4.2	4.2
49	10.0	8.7	6.8	6.3	5.7	5.0	4.8	4.7	5.0	4.0	3.5	3.7
Paint - Water, Yellow (90 sec)												
44	10.0	7.6	6.8	5.8	5.3	4.5	4.5	4.3	4.0	3.8	3.8	3.8
Paint - Polyester, White (90 sec)												
23	9.9	8.5	7.2	6.7	6.0	5.0	4.5	5.3	5.3	4.5	5.0	5.7
Paint - Polyester, White (30 min)												
21	10.0	9.3	8.9	8.5	8.5	8.3	6.5	7.5	7.7	7.2	6.8	6.7

TABLE 28. Durability Data for Unbeaded Paint and Thermoplastic Transverse Lines on Asphalt Pavement (Alabama)(continued)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MAR 1990	APRIL 1990
Paint - Polyester, Yellow (90 sec)												
24	10.0	8.2	7.4	6.3	6.0	5.0	4.0	5.0	5.0	4.7	4.7	4.3
Paint - Polyester, Yellow (30 min)												
22	10.0	9.3	9.1	8.7	8.5	8.3	7.8	7.5	8.0	7.3	7.2	7.5
Thermoplastic - White, Alkyd												
47	10.0	10.0	10.0	10.0	10.0	10.0	9.2	10.0	9.7	10.0	10.0	10.0
60	10.0	10.0	10.0	10.0	10.0	10.0	9.3	10.0	9.7	10.0	10.0	10.0
Thermoplastic - White, Hydrocarbon												
35	10.0	10.0	10.0	10.0	10.0	10.0	9.3	10.0	9.7	10.0	10.0	10.0
58	10.0	10.0	10.0	10.0	10.0	10.0	9.3	10.0	9.7	10.0	10.0	10.0
Methacrylate - White												
31	10.0	10.0	10.0	10.0	10.0	10.0	9.3	10.0	9.7	10.0	10.0	10.0
32	10.0	10.0	10.0	10.0	10.0	10.0	9.3	10.0	9.7	10.0	10.0	10.0
Thermoplastic - Yellow, Alkyd												
46	10.0	10.0	10.0	10.0	10.0	10.0	9.3	10.0	9.7	10.0	10.0	9.7
59	10.0	10.0	10.0	10.0	10.0	10.0	9.3	10.0	9.7	10.0	10.0	10.0
Thermoplastic - Yellow, Hydrocarbon												
34	10.0	10.0	10.0	10.0	10.0	10.0	9.3	10.0	9.7	10.0	10.0	10.0
57	10.0	10.0	10.0	10.0	10.0	10.0	9.3	10.0	9.7	10.0	10.0	10.0
Preformed Thermoplastic, White												
1	10.0	10.0	10.0	10.0	9.7	10.0	9.3	10.0	9.3	9.7	10.0	10.0

TABLE 29. Durability Data for Unbeaded Paint and Thermoplastic Transverse Lines on Portland Cement Concrete Pavement (Kentucky)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, White (60 sec)												
4	10.0	10.0	9.4	10.0	10.0	10.0	10.0	9.3	8.9	9.0	8.9	8.8
6	10.0	10.0	9.4	10.0	10.0	10.0	10.0	9.3	8.9	9.0	8.9	8.3
8	10.0	9.8	9.6	10.0	10.0	10.0	9.7	9.1	7.7	7.7	7.6	6.8
10	10.0	10.0	9.7	10.0	10.0	10.0	9.7	8.4	7.4	7.2	6.7	6.3
41	10.0	10.0	10.0	10.0	10.0	10.0	9.8	9.2	8.2	8.2	8.2	7.7
43	10.0	10.0	10.0	10.0	10.0	10.0	9.8	9.3	8.5	8.0	8.2	7.2
50	10.0	10.0	9.8	10.0	10.0	10.0	10.0	9.3	8.8	9.0	8.8	8.8
Paint - Solvent, White (3 min or more)												
2	10.0	10.0	10.0	10.0	10.0	10.0	9.8	9.1	8.0	8.0	8.3	7.5
12	10.0	10.0	9.9	10.0	9.7	10.0	9.9	9.3	8.8	8.7	8.5	8.0
Paint - Solvent, Yellow (60 sec)												
5	9.9	9.9	9.7	9.9	9.9	9.8	9.6	9.3	8.9	8.4	8.1	7.3
7	9.9	9.7	9.4	9.8	9.7	9.8	9.5	9.2	8.8	8.1	8.3	7.3
9	10.0	10.0	9.9	10.0	10.0	10.0	9.8	9.3	8.2	8.0	7.9	7.2
11	10.0	10.0	9.8	10.0	9.7	9.7	9.7	8.7	7.3	6.7	6.6	5.2
40	10.0	9.6	9.6	9.6	9.4	9.3	9.1	8.3	7.3	6.8	7.0	6.5
42	10.0	10.0	10.0	10.0	10.0	10.0	9.7	9.3	8.2	8.0	7.8	7.3
52	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.3	9.2	9.0	8.8	8.7
53	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.3	9.2	9.0	8.8	8.7
Paint - Solvent, Yellow (3 min or more)												
3	10.0	10.0	9.9	10.0	9.7	9.4	9.5	9.1	8.2	7.9	7.8	7.5
13	10.0	10.0	10.0	10.0	10.0	10.0	9.7	9.2	8.7	8.5	8.3	7.7
Paint - Water, White (60 sec)												
14	10.0	10.0	10.0	9.7	5.7	4.8	4.6	3.1	3.2	1.9	1.8	2.0
16	10.0	10.0	10.0	9.7	8.7	8.6	8.9	4.2	3.0	2.8	2.5	3.2
51	8.2	6.3	6.9	6.6	4.4	4.4	4.6	3.3	2.8	2.9	2.3	2.5
Paint - Water, White (90 sec)												
19	10.0	10.0	10.0	9.7	6.8	6.4	7.4	4.4	3.2	2.5	2.5	2.8
45	9.1	8.1	8.0	7.9	6.1	5.0	5.9	4.5	4.2	4.0	3.3	3.5
Paint - Water, Yellow (60 sec)												
15	10.0	9.7	9.7	8.9	5.3	4.0	3.5	2.7	2.8	1.9	1.3	1.5
17	10.0	10.0	10.0	9.4	8.0	6.8	7.3	5.4	3.3	2.2	2.1	2.3
18	10.0	9.7	9.7	8.4	4.3	3.3	2.9	2.5	2.2	2.0	1.8	1.5
20	10.0	10.0	9.7	9.4	8.7	8.6	8.9	4.8	4.3	3.5	3.0	3.0
25	10.0	9.8	9.6	8.8	5.7	5.3	4.9	4.3	4.0	3.0	2.8	2.7
26	10.0	9.4	9.2	8.4	6.5	5.5	5.5	4.5	4.2	3.0	2.9	3.0
48	9.1	8.0	7.8	6.3	6.0	4.7	4.7	3.0	2.2	3.7	2.5	2.5
49	9.3	8.3	8.3	7.8	4.5	4.7	4.3	2.3	3.0	2.3	1.7	1.7
Paint - Water, Yellow (90 sec)												
44	9.2	7.3	7.7	6.8	6.0	5.0	5.8	3.8	5.2	3.8	2.8	3.2
Paint - Polyester, White (90 sec)												
23	9.7	2.3	4.0	1.2	1.0	0.7	0.7	0.8	0.3	0.5	0.3	0.7
Paint - Polyester, White (30 min)												
21	10.0	9.7	9.6	9.5	8.8	8.8	9.2	8.3	6.9	7.5	7.6	6.8

TABLE 29. Durability Data for Unbeaded Paint and Thermoplastic Transverse Lines on Portland Cement Concrete Pavement (Kentucky)
(continued)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Polyester, Yellow (90 sec)												
24	9.5	3.8	4.5	1.1	1.2	1.0	0.7	0.8	0.3	0.5	0.3	0.7
Paint - Polyester, Yellow (30 min)												
22	10.0	9.7	9.2	8.9	8.7	8.2	9.0	8.3	7.2	7.7	6.8	6.7
Thermoplastic - White, Alkyd												
47	10.0	10.0	9.8	10.0	10.0	10.0	9.9	9.9	10.0	10.0	10.0	10.0
60	10.0	10.0	9.8	10.0	10.0	10.0	9.3	9.2	9.7	9.2	9.2	9.0
Thermoplastic - White, Hydrocarbon												
35	10.0	10.0	9.9	10.0	10.0	10.0	9.8	9.8	9.8	10.0	9.8	10.0
58	10.0	10.0	9.6	10.0	10.0	10.0	9.8	9.8	10.0	10.0	10.0	10.0
Methacrylate - White												
31*	---	---	---	---	---	---	---	---	---	---	---	---
32	10.0	10.0	9.4	10.0	10.0	10.0	10.0	9.8	10.0	10.0	10.0	10.0
Thermoplastic - Yellow, Alkyd												
46	10.0	10.0	10.0	10.0	10.0	10.0	9.9	9.7	10.0	9.7	10.0	9.7
59	10.0	10.0	9.9	10.0	10.0	10.0	10.0	9.8	10.0	10.0	10.0	9.7
Thermoplastic - Yellow, Hydrocarbon												
34	10.0	10.0	10.0	10.0	10.0	10.0	9.8	9.7	10.0	9.7	9.5	9.3
57	10.0	10.0	9.8	10.0	10.0	10.0	10.0	9.8	9.9	10.0	9.3	8.2
Preformed Thermoplastic, White												
1	10.0	10.0	9.5	10.0	10.0	10.0	10.0	9.7	9.7	9.7	9.8	9.7

* White methacrylate #31 was not available for the PCC pavement.

TABLE 30. Durability Data for Unbeaded Paint and Thermoplastic Transverse Lines on Portland Cement Concrete Pavement (Alabama)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MAR 1990	APRIL 1990
Paint - Solvent, White (60 sec)												
4	10.0	9.8	9.8	9.3	8.8	8.3	8.8	8.3	8.8	8.7	8.2	7.7
6	10.0	9.8	9.8	9.3	8.8	7.7	8.8	8.3	8.5	8.5	7.8	7.7
8	9.8	9.8	9.8	8.8	8.8	7.7	8.7	8.3	8.3	8.3	7.7	7.3
10	9.1	9.8	9.8	8.8	8.8	7.7	8.7	8.3	7.8	7.3	6.5	6.0
41	10.0	9.8	9.7	9.7	9.3	8.5	8.7	8.5	8.2	7.8	7.7	8.0
43	10.0	9.8	9.8	9.8	9.0	8.8	9.2	8.5	8.5	8.7	7.8	8.2
50	10.0	9.8	9.7	9.7	9.7	8.5	9.0	8.5	8.3	8.7	8.3	8.2
Paint - Solvent, White (3 min or more)												
2	10.0	10.0	9.8	9.3	9.3	8.5	8.8	8.3	7.8	8.2	7.2	7.2
12	10.0	10.0	9.8	9.8	9.7	9.3	9.3	8.8	8.8	9.0	8.3	8.7
Paint - Solvent, Yellow (60 sec)												
5	10.0	9.8	9.8	9.5	9.0	8.5	9.2	8.5	8.5	8.7	8.3	8.2
7	9.9	9.8	9.8	9.5	9.0	8.7	9.2	8.3	8.3	8.5	8.0	7.8
9	9.8	9.8	9.8	9.3	9.2	8.7	9.2	8.3	8.5	8.5	8.2	8.0
11	9.8	9.8	9.7	9.0	8.8	8.2	9.3	8.3	8.2	8.3	8.0	7.5
40	10.0	9.8	9.7	9.7	9.2	8.5	8.8	8.7	8.5	8.5	7.8	8.5
42	10.0	9.8	9.7	9.7	9.7	8.8	9.2	8.7	8.7	8.7	8.0	8.5
52	10.0	9.8	9.8	9.8	9.7	8.8	9.2	8.7	8.8	8.5	8.3	8.5
53	9.9	9.8	9.8	9.8	9.2	8.7	9.5	8.7	8.8	8.7	8.0	8.2
Paint - Solvent, Yellow (3 min or more)												
3	10.0	10.0	9.8	9.8	9.7	9.2	9.3	8.7	8.3	8.7	8.0	8.3
13	9.9	9.8	9.5	9.0	8.8	8.2	8.7	7.8	8.0	7.7	7.8	7.5
Paint - Water, White (60 sec)												
14	10.0	9.7	9.8	9.8	9.0	7.8	8.7	8.2	7.5	7.2	6.8	6.5
16	10.0	9.7	9.8	9.8	9.0	8.2	9.0	8.3	7.7	7.8	7.7	7.3
51	9.6	9.2	7.8	7.3	6.3	5.8	5.7	5.5	5.2	4.8	3.8	4.5
Paint - Water, White (90 sec)												
19	10.0	10.0	9.8	9.7	9.0	8.2	8.8	8.5	7.7	7.8	7.8	7.7
45	9.4	9.0	7.7	7.2	6.3	6.2	6.3	6.0	6.0	5.2	5.0	5.5
Paint - Water, Yellow (60 sec)												
15	10.0	9.8	9.7	9.5	9.2	8.7	9.2	8.5	8.5	8.7	7.8	8.0
17	10.0	9.8	9.7	9.8	9.5	8.3	9.5	8.8	8.7	8.3	8.0	8.0
18	9.4	9.5	9.0	8.7	8.3	7.3	8.3	7.5	7.0	6.7	6.8	6.0
20	10.0	9.7	9.6	9.7	8.8	8.0	8.7	8.7	8.3	8.0	7.5	7.7
25	9.1	9.2	8.0	8.0	7.0	6.7	6.8	6.7	6.3	6.2	6.0	6.2
26	9.4	9.5	8.8	8.8	8.3	7.7	8.0	7.2	7.0	6.5	6.5	5.7
48	9.6	8.9	7.7	7.2	6.2	6.0	5.2	5.3	5.0	4.7	4.8	4.3
49	9.5	9.0	7.8	7.5	6.3	6.0	6.0	5.5	5.5	4.8	4.3	4.8
Paint - Water, Yellow (90 sec)												
44	8.7	8.5	7.8	7.3	6.3	6.2	6.2	6.0	6.0	5.5	5.0	5.5
Paint - Polyester, White (90 sec)												
23	9.1	5.0	3.2	2.5	1.7	1.8	1.2	1.0	0.8	0.7	1.3	0.7
Paint - Polyester, White (30 min)												
21	9.5	9.0	8.3	8.3	7.2	6.2	6.5	6.5	6.0	5.5	5.2	5.2

TABLE 30. Durability Data for Unbeaded Paint and Thermoplastic Transverse Lines on Portland Cement Concrete Pavement (Alabama)
(continued)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MAR 1990	APRIL 1990
Paint - Polyester, Yellow (90 sec)												
24	8.5	4.7	2.7	2.5	1.3	1.3	1.0	0.7	0.8	0.7	1.0	0.7
Paint - Polyester, Yellow (30 min)												
22	9.6	9.0	8.8	7.7	7.2	7.0	7.0	6.2	6.3	5.8	5.3	5.8
Thermoplastic - White, Alkyd												
47	10.0	10.0	10.0	10.0	10.0	9.5	10.0	10.0	10.0	10.0	10.0	10.0
60	10.0	10.0	10.0	10.0	10.0	9.7	10.0	10.0	9.7	10.0	10.0	10.0
Thermoplastic - White, Hydrocarbon												
35	10.0	10.0	10.0	10.0	10.0	9.7	10.0	10.0	10.0	10.0	10.0	10.0
58	10.0	10.0	10.0	10.0	10.0	9.7	10.0	10.0	10.0	10.0	10.0	10.0
Methacrylate - White												
31	10.0	10.0	10.0	10.0	10.0	9.2	10.0	10.0	10.0	10.0	10.0	10.0
32	10.0	10.0	10.0	10.0	10.0	9.3	10.0	10.0	10.0	10.0	10.0	10.0
Thermoplastic - Yellow, Alkyd												
46	10.0	10.0	10.0	10.0	10.0	9.7	10.0	10.0	10.0	10.0	10.0	10.0
59	10.0	10.0	10.0	10.0	10.0	9.7	10.0	10.0	10.0	10.0	10.0	10.0
Thermoplastic - Yellow, Hydrocarbon												
34	10.0	10.0	10.0	10.0	10.0	9.7	10.0	10.0	10.0	10.0	10.0	10.0
57	10.0	10.0	10.0	10.0	10.0	9.3	10.0	10.0	10.0	10.0	10.0	10.0
Preformed Thermoplastic, White												
1	10.0	10.0	10.0	9.7	9.3	9.3	9.7	10.0	10.0	10.0	10.0	10.0

TABLE 31. Appearance Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Kentucky)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, White (60 sec)												
4	9.7	9.1	8.7	8.0	8.6	8.0	8.0	7.7	7.7	7.1	7.1	6.7
6	9.8	9.3	9.1	8.3	8.7	8.3	8.1	8.0	8.0	7.2	7.6	6.9
8	9.8	9.1	9.0	8.3	8.7	8.3	7.8	8.3	7.9	7.4	7.6	7.5
10	9.7	8.8	8.9	8.1	8.6	8.1	7.8	7.3	7.5	6.8	6.7	6.5
41	8.8	8.3	8.5	7.7	7.8	7.8	7.7	6.5	7.1	6.5	6.4	6.2
43	9.0	8.4	8.6	7.6	7.9	7.8	7.4	6.2	6.8	6.5	6.2	6.0
50	9.8	9.2	9.3	8.9	8.9	8.5	8.8	8.3	8.1	6.9	7.3	6.6
Paint - Solvent, White (3 min or more)												
2	9.8	9.3	9.4	8.6	8.4	8.2	8.3	7.8	8.0	7.2	7.4	6.8
12	9.0	8.5	8.4	7.5	7.8	7.9	7.7	7.3	7.6	6.9	7.1	6.6
Paint - Solvent, Yellow (60 sec)												
5	10.0	9.3	9.6	8.9	9.3	9.3	8.7	8.0	8.3	7.8	7.5	7.4
7	9.9	9.3	9.6	8.7	8.8	8.5	8.6	7.8	8.3	7.2	7.1	6.8
9	10.0	9.4	9.7	9.0	9.0	8.8	8.3	8.0	8.3	7.6	7.0	6.9
11	10.0	9.2	9.6	8.7	8.8	8.2	8.1	7.4	8.0	6.9	6.6	6.6
40	9.6	9.7	9.8	9.3	9.3	8.9	9.3	8.8	8.8	8.0	7.5	7.6
42	9.8	9.7	9.8	9.1	9.4	9.3	9.3	7.8	8.0	7.7	7.1	7.3
52	10.0	9.7	9.8	9.5	9.5	9.4	9.7	8.4	8.2	7.8	8.0	7.3
53	9.7	9.6	9.3	8.8	9.1	8.1	7.9	7.4	7.6	6.8	6.8	6.1
Paint - Solvent, Yellow (3 min or more)												
3	9.8	9.5	9.7	8.9	9.3	8.9	8.6	7.8	8.1	7.5	7.4	6.7
13	9.8	9.4	9.4	9.0	9.3	9.3	8.8	8.1	8.4	7.8	7.6	7.2
Paint - Water, White (60 sec)												
14	10.0	9.3	9.6	9.3	9.3	9.1	9.5	8.8	8.8	8.5	8.6	8.3
16	10.0	9.1	9.5	8.8	8.7	8.4	8.7	8.5	8.3	7.9	7.9	7.8
51	9.8	9.3	9.7	8.9	9.3	8.4	9.1	8.7	8.0	7.3	7.7	7.2
Paint - Water, White (90 sec)												
19	9.9	9.0	9.3	8.9	8.8	7.9	8.7	7.8	8.2	7.7	7.2	7.0
45	9.6	8.9	9.0	8.7	8.1	8.2	8.5	8.3	8.3	7.7	7.5	7.3
Paint - Water, Yellow (60 sec)												
15	10.0	9.3	9.7	8.8	9.0	9.0	9.0	8.3	8.3	8.2	7.9	7.6
17	10.0	9.3	9.7	8.8	9.3	9.1	9.3	8.8	8.9	8.5	8.4	7.8
18	9.8	9.1	9.5	8.6	9.0	8.2	8.3	7.8	8.1	7.7	7.5	7.2
20	10.0	9.3	9.7	8.8	8.9	8.8	9.1	8.3	8.6	7.8	7.8	7.4
25	9.7	9.1	9.5	8.5	8.6	8.1	8.3	7.5	8.0	7.3	7.3	6.7
26	9.8	9.2	9.6	8.7	9.0	8.6	8.8	7.8	8.3	7.8	7.8	7.3
48	10.0	9.4	9.5	9.1	9.2	9.2	9.2	8.8	8.4	8.2	7.8	7.5
49	10.0	9.7	9.8	9.5	9.5	9.5	9.7	9.0	8.8	8.2	8.3	8.3
Paint - Water, Yellow (90 sec)												
44	9.8	9.6	9.6	8.8	8.3	8.2	8.7	7.8	7.9	7.8	7.6	7.9
Paint - Polyester, White (90 sec)												
23	9.4	9.3	9.3	8.4	8.4	8.1	8.4	8.6	7.8	7.8	7.7	7.1
Paint - Polyester, White (30 min)												
21	9.5	9.3	9.4	9.3	9.2	8.7	9.2	9.0	8.5	8.2	8.2	7.8

TABLE 31. Appearance Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Kentucky)
(continued)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Polyester, Yellow (90 sec)												
24	9.3	9.3	9.4	8.8	8.8	8.8	8.7	8.6	8.7	8.1	7.9	7.4
Paint - Polyester, Yellow (30 min)												
22	9.8	9.5	9.6	9.3	9.3	9.0	9.7	8.9	8.6	8.6	8.5	8.2
Thermoplastic - White, Alkyd												
47	9.8	9.7	7.9	9.3	9.5	9.3	9.4	9.3	9.0	9.1	9.3	8.6
60	10.0	9.5	9.6	9.3	9.6	9.4	9.4	9.3	9.3	8.9	9.1	8.8
Thermoplastic - White, Hydrocarbon												
35	9.8	9.5	9.4	9.3	9.5	9.3	9.4	9.3	9.1	9.1	9.3	8.5
58	9.6	9.3	9.3	8.9	9.4	9.3	9.2	8.9	9.2	9.0	9.2	8.3
Methacrylate - White												
31	9.6	9.8	9.8	9.6	9.6	9.5	9.4	9.2	9.0	8.6	9.3	8.5
32	9.6	9.8	9.8	9.6	9.6	9.5	9.3	8.7	9.0	8.5	8.9	8.2
Thermoplastic - Yellow, Alkyd												
46	10.0	9.8	9.9	9.0	9.3	9.3	8.9	8.6	8.9	8.8	8.5	8.2
59	10.0	9.8	10.0	9.7	9.6	9.5	9.5	9.3	9.3	9.3	9.5	9.2
Thermoplastic - Yellow, Hydrocarbon												
34	10.0	9.8	10.0	9.6	9.9	9.7	9.4	9.3	9.3	9.3	9.4	9.0
57	9.8	9.6	9.8	9.4	9.6	9.5	9.3	8.9	9.3	8.9	9.3	8.4
Preformed Thermoplastic, White												
1	9.3	9.0	9.2	9.0	9.1	8.9	8.6	8.3	8.7	8.4	8.4	8.3
Permanent Tape, White												
37	9.7	9.4	9.1	8.9	8.9	9.0	9.0	8.5	8.7	8.2	9.0	8.9
55	9.9	10.0	9.9	9.6	9.7	9.7	9.7	9.1	9.7	9.6	9.3	9.2
62	10.0	10.0	10.0	9.8	10.0	9.8	9.7	9.7	9.7	9.7	9.7	9.3
Temporary Tape, White												
30	9.8	8.8	9.2	8.7	8.8	9.0	9.0	8.7	8.9	8.8	9.0	8.8
Permanent Tape, Yellow												
36	9.9	9.8	9.6	9.5	9.3	8.8	9.3	9.0	9.1	8.7	9.2	9.3
56	9.7	9.8	9.8	9.7	9.5	9.7	9.7	9.3	9.3	8.8	9.2	9.2
Temporary Tape, Yellow												
27	9.9	9.5	9.7	9.3	9.3	9.3	9.3	8.3	9.4	9.1	8.9	8.0

TABLE 32. Appearance Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Alabama)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990
Paint - Solvent, White (60 sec)												
4	10.0	10.0	9.5	9.3	9.2	8.7	7.8	8.0	8.2	7.7	7.5	7.2
6	10.0	10.0	9.5	9.3	9.2	8.7	7.8	7.8	8.2	7.3	7.0	6.8
8	10.0	10.0	9.6	9.5	9.2	8.7	7.8	7.8	8.2	7.3	7.0	6.8
10	10.0	9.8	9.6	9.5	9.2	8.7	7.7	7.8	7.8	7.0	6.5	6.7
41	10.0	10.0	9.7	9.5	9.0	8.7	8.3	8.3	8.3	8.3	8.0	7.5
43	10.0	10.0	9.7	9.3	8.8	8.7	8.0	8.3	8.3	8.2	7.3	7.3
50	10.0	10.0	9.8	9.8	9.0	8.7	8.0	8.3	8.3	8.3	8.0	7.5
Paint - Solvent, White (3 min or more)												
2	10.0	10.0	9.7	9.7	9.0	8.8	7.8	8.3	8.7	8.3	7.8	7.3
12	10.0	10.0	9.5	9.3	8.8	8.5	8.0	8.0	8.3	7.8	7.8	7.0
Paint - Solvent, Yellow (60 sec)												
5	10.0	10.0	9.8	10.0	9.3	9.0	8.3	8.7	9.0	8.5	8.2	7.8
7	10.0	10.0	10.0	10.0	9.3	9.0	8.3	8.5	9.0	8.5	8.2	7.8
9	10.0	10.0	8.8	9.5	9.2	9.0	8.3	8.7	8.7	8.0	7.3	7.8
11	10.0	10.0	9.6	9.7	9.2	9.0	8.3	8.5	8.7	8.0	7.3	7.7
40	10.0	10.0	10.0	10.0	9.3	9.3	8.7	9.0	9.0	8.8	8.2	8.3
42	10.0	10.0	10.0	10.0	9.3	9.3	8.7	9.0	9.0	8.8	8.2	8.3
52	10.0	10.0	10.0	10.0	9.3	9.2	8.7	8.8	9.0	8.7	8.2	7.8
53	10.0	10.0	10.0	10.0	9.3	9.2	8.7	8.5	8.8	8.7	8.0	7.8
Paint - Solvent, Yellow (3 min or more)												
3	10.0	9.8	9.7	9.3	9.0	9.0	8.5	8.2	9.0	8.2	8.0	7.8
13	10.0	10.0	9.7	9.5	9.0	9.0	8.7	8.2	9.0	8.3	8.0	7.5
Paint - Water, White (60 sec)												
14	10.0	9.2	7.9	7.9	7.2	7.5	6.8	6.8	6.7	6.0	5.6	6.0
16	10.0	9.7	9.7	9.5	9.2	8.8	8.5	7.8	8.2	7.7	7.0	7.3
51	10.0	9.2	8.5	8.2	7.5	8.1	7.4	6.8	7.2	6.6	6.4	6.3
Paint - Water, White (90 sec)												
19	10.0	9.6	9.4	9.3	8.8	8.5	7.9	7.8	7.8	7.5	6.8	7.3
45	10.0	7.8	7.0	6.3	5.9	7.5	6.2	5.7	5.8	5.2	5.2	5.7
Paint - Water, Yellow (60 sec)												
15	10.0	9.4	9.1	8.6	8.0	8.3	8.0	7.8	8.0	7.3	7.1	7.3
17	10.0	10.0	9.7	9.7	9.2	9.0	8.5	8.7	8.7	8.5	8.2	8.2
18	10.0	9.2	8.9	8.5	8.0	8.0	7.8	7.3	7.5	7.2	6.5	7.3
20	10.0	9.1	9.1	8.8	8.7	8.3	7.7	8.0	8.1	7.5	7.0	7.6
25	10.0	9.1	9.1	8.5	8.0	8.3	7.8	7.8	8.0	7.0	7.2	7.5
26	10.0	8.6	8.6	8.3	8.0	8.2	7.2	7.7	8.0	7.0	6.5	7.0
48	10.0	8.8	7.9	7.5	6.5	6.5	6.3	6.2	6.3	6.2	5.5	5.8
49	10.0	8.7	8.0	7.5	6.7	8.0	6.8	6.3	6.3	6.5	5.9	6.0
Paint - Water, Yellow (90 sec)												
44	10.0	8.3	7.3	7.3	6.3	6.3	6.3	6.2	6.3	6.2	5.5	5.8
Paint - Polyester, White (90 sec)												
23	10.0	10.0	8.8	8.8	7.8	7.7	7.3	7.6	8.2	7.3	7.4	7.3
Paint - Polyester, White (30 min)												
21	10.0	9.9	9.6	9.3	9.8	8.8	7.7	7.8	8.3	8.0	7.5	7.5

TABLE 32. Appearance Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Alabama)
(continued)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MAR 1990	APRIL 1990
Paint - Polyester, Yellow (90 sec)												
24	10.0	10.0	8.3	8.2	7.4	7.9	7.7	7.4	7.8	7.8	7.3	7.3
Paint - Polyester, Yellow (30 min)												
22	10.0	10.0	9.8	9.9	9.4	9.2	8.4	8.8	9.0	8.3	8.2	8.6
Thermoplastic - White, Alkyd												
47	10.0	10.0	9.8	9.8	10.0	10.0	9.7	10.0	10.0	10.0	9.5	9.7
60	10.0	10.0	10.0	9.7	10.0	10.0	9.3	9.8	10.0	10.0	9.5	9.5
Thermoplastic - White, Hydrocarbon												
35	10.0	10.0	9.5	9.8	10.0	10.0	9.7	10.0	10.0	10.0	9.5	9.7
58	10.0	10.0	9.6	9.3	9.5	9.7	9.2	9.7	10.0	10.0	9.5	9.5
Methacrylate - White												
31	10.0	10.0	9.8	9.8	9.9	10.0	9.7	9.8	10.0	10.0	9.5	9.5
32	10.0	10.0	9.6	9.7	9.8	9.5	9.7	9.5	9.7	9.3	9.0	9.0
Thermoplastic - Yellow, Alkyd												
46	10.0	9.7	10.0	10.0	10.0	10.0	9.7	10.0	10.0	10.0	10.0	10.0
59	10.0	10.0	10.0	10.0	10.0	10.0	9.3	10.0	10.0	10.0	9.8	10.0
Thermoplastic - Yellow, Hydrocarbon												
34	10.0	10.0	9.8	10.0	10.0	10.0	9.7	10.0	10.0	10.0	10.0	10.0
57	10.0	10.0	10.0	9.8	10.0	9.8	8.8	10.0	10.0	10.0	9.8	10.0
Preformed Thermoplastic, White												
1	10.0	9.7	9.3	9.3	9.3	9.2	8.3	9.3	9.0	9.3	9.0	9.0
Permanent Tape, White												
37	10.0	10.0	9.5	9.0	9.0	8.7	9.1	9.0	8.7	8.4	8.8	8.7
55	10.0	10.0	9.9	10.0	10.0	9.7	9.4	10.0	9.7	9.7	9.7	9.7
62	10.0	10.0	10.0	10.0	10.0	10.0	9.5	10.0	9.7	9.7	10.0	9.7
Temporary Tape, White												
30	10.0	9.5	9.5	9.0	9.0	8.7	8.5	9.0	8.3	8.3	8.0	8.2
Permanent Tape, Yellow												
36	10.0	10.0	9.6	9.3	9.5	9.0	9.7	9.2	8.8	8.8	9.3	9.0
56	10.0	10.0	9.9	10.0	10.0	10.0	9.7	10.0	9.7	9.7	10.0	9.7
Temporary Tape, Yellow												
27	10.0	9.5	9.5	9.0	9.0	8.7	8.5	9.0	8.3	8.3	8.0	8.2

TABLE 33. Appearance Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Kentucky)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, White (60 sec)												
4	9.8	9.3	8.5	7.4	7.6	7.5	7.8	7.5	7.2	6.6	6.8	6.3
6	9.7	9.4	8.5	7.7	8.0	7.8	8.0	7.5	7.2	6.8	7.0	6.3
8	9.2	9.8	8.8	7.8	8.2	8.1	8.1	7.9	7.5	7.2	7.1	6.3
10	8.8	9.5	8.4	7.9	8.1	7.9	8.0	7.3	6.9	6.5	6.3	5.8
41	9.6	9.3	7.9	7.3	7.4	7.4	7.7	7.6	7.3	6.8	7.0	6.7
43	8.8	9.4	8.3	8.1	8.3	8.2	8.1	8.1	7.4	7.5	7.3	7.2
50	9.7	9.9	9.1	8.4	8.8	8.7	8.6	8.3	7.8	7.3	7.4	6.7
Paint - Solvent, White (3 min or more)												
2	9.7	10.0	9.4	8.8	8.9	8.8	9.3	8.1	7.9	7.3	7.2	6.6
12	9.8	9.5	8.0	6.9	7.3	7.2	7.6	6.8	7.0	6.4	6.0	5.3
Paint - Solvent, Yellow (60 sec)												
5	9.4	9.8	8.7	7.5	8.0	7.7	7.6	7.2	7.3	6.5	6.8	6.2
7	9.8	9.4	8.1	7.3	7.4	7.3	7.4	6.8	6.8	6.3	5.8	5.2
9	9.3	10.0	9.3	7.9	8.0	7.8	7.8	7.8	7.5	7.0	6.4	6.2
11	9.4	9.7	8.2	7.3	7.6	7.4	7.3	6.8	6.9	6.4	6.0	5.2
40	9.3	9.8	9.2	8.8	8.8	8.5	9.0	8.3	8.0	7.8	7.5	7.1
42	9.5	9.8	9.0	8.5	8.8	8.6	8.7	8.3	7.8	7.8	7.3	7.0
52	9.4	10.0	9.3	8.7	9.2	9.0	9.1	8.8	8.2	7.4	6.9	6.5
53	8.8	10.0	9.3	8.3	8.7	8.2	8.2	8.3	7.6	7.2	6.7	6.5
Paint - Solvent, Yellow (3 min or more)												
3	9.0	9.9	9.3	8.5	8.3	8.2	8.4	7.6	7.6	6.8	6.5	6.0
13	9.6	9.8	9.1	8.1	7.9	8.0	8.1	7.6	7.8	7.0	6.6	5.7
Paint - Water, White (60 sec)												
14	10.0	10.0	9.3	9.0	9.1	9.2	9.3	8.7	8.0	8.0	7.9	7.2
16	10.0	10.0	9.5	8.9	9.1	9.2	9.3	8.5	8.1	7.7	7.8	6.8
51	9.7	9.2	8.2	7.6	8.3	7.9	8.2	8.0	7.4	7.2	7.2	6.4
Paint - Water, White (90 sec)												
19	10.0	10.0	9.3	8.9	9.1	9.2	9.3	8.4	8.0	7.6	7.7	6.5
45	9.6	9.2	7.8	7.4	7.8	7.5	8.0	7.4	7.3	6.9	7.2	6.7
Paint - Water, Yellow (60 sec)												
15	9.9	10.0	9.3	8.9	9.2	8.2	8.5	8.0	7.3	7.3	7.3	6.8
17	10.0	10.0	9.5	9.2	9.3	8.8	8.8	8.3	7.8	7.8	7.6	7.0
18	10.0	10.0	9.3	8.8	9.0	8.5	8.5	8.3	7.5	7.3	7.4	6.8
20	10.0	10.0	9.3	9.1	9.3	9.2	9.3	8.5	8.1	7.2	7.8	7.0
25	9.5	9.8	9.1	8.3	8.5	8.1	8.0	7.3	7.3	6.9	6.3	5.8
26	9.4	10.0	9.3	9.0	9.2	8.4	8.3	7.8	7.3	6.7	7.0	6.8
48	9.5	9.3	8.8	8.2	8.6	8.1	8.1	8.3	8.0	7.7	7.8	7.3
49	9.5	9.1	8.6	8.1	8.5	8.1	8.3	8.5	7.7	7.8	7.8	7.3
Paint - Water, Yellow (90 sec)												
44	9.0	9.8	8.9	8.3	8.4	8.1	8.0	7.6	7.4	7.4	7.2	7.1
Paint - Polyester, White (90 sec)												
23	9.8	9.8	9.2	8.1	8.4	8.1	8.2	8.3	7.3	7.3	6.7	5.8
Paint - Polyester, White (30 min)												
21	9.8	9.5	8.7	8.2	8.3	8.0	8.4	8.2	7.5	7.3	7.2	6.4

TABLE 33. Appearance Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Kentucky)(continued)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Polyester, Yellow (90 sec)												
24	9.5	9.9	9.2	8.0	8.5	8.3	8.6	8.3	8.2	7.3	7.4	6.8
Paint - Polyester, Yellow (30 min)												
22	9.4	10.0	9.0	8.4	8.7	8.8	8.7	8.3	8.1	7.4	7.2	6.7
Thermoplastic - White, Alkyd												
47	9.4	10.0	9.2	8.8	9.2	9.6	9.4	8.9	9.3	8.6	8.8	7.8
60	9.5	9.8	8.9	8.5	9.0	9.3	9.1	8.9	8.6	8.3	8.4	7.4
Thermoplastic - White, Hydrocarbon												
35	9.7	10.0	9.3	8.9	9.3	9.5	9.5	9.0	9.3	8.7	8.8	7.9
58	9.3	9.4	8.3	7.8	8.3	8.4	8.6	8.2	8.4	7.8	7.9	7.3
Methacrylate - White												
31*	---	---	---	---	---	---	---	---	---	---	---	---
32	9.5	9.9	8.5	8.3	8.2	8.3	9.0	8.4	7.8	7.3	7.2	6.7
Thermoplastic - Yellow, Alkyd												
46	9.3	10.0	9.2	8.6	9.1	8.8	8.6	8.5	8.6	8.2	8.0	7.3
59	9.4	10.0	9.2	9.0	9.5	9.7	9.2	9.3	9.3	9.3	8.8	8.2
Thermoplastic - Yellow, Hydrocarbon												
34	9.2	10.0	9.3	8.8	9.3	9.2	9.3	8.8	8.9	8.4	8.3	7.8
57	9.3	9.8	8.8	8.8	9.3	9.2	8.8	8.4	8.3	8.2	7.8	7.2
Preformed Thermoplastic, White												
1	8.9	9.3	7.8	7.6	7.9	8.3	8.3	7.9	7.7	7.4	7.6	7.3
Permanent Tape, White												
37	8.5	9.7	7.8	7.6	7.7	7.9	7.9	7.3	7.4	7.0	7.5	7.2
55	9.3	10.0	9.5	9.5	9.5	9.2	9.5	8.8	8.6	8.7	8.4	8.3
62	9.9	10.0	9.7	9.6	9.9	9.3	9.6	9.6	8.8	8.9	9.1	8.9
Temporary Tape, White												
30	8.8	9.5	8.5	8.1	7.9	8.2	8.8	8.7	8.7	8.2	8.5	7.7
Permanent Tape, Yellow												
36	9.2	9.9	8.6	8.8	8.8	8.8	8.8	8.4	8.7	7.5	8.2	8.2
56	9.1	9.8	9.3	9.4	9.4	9.1	9.4	8.6	8.8	8.3	8.8	8.9
Temporary Tape, Yellow												
27	9.0	9.9	9.1	8.6	8.8	9.0	9.1	8.8	9.1	8.9	8.8	7.8

* White methacrylate #31 was not available for the PCC pavement.

TABLE 34. Appearance Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Alabama)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990
Paint - Solvent, White (60 sec)												
4	10.0	10.0	10.0	10.0	9.0	8.2	8.7	8.5	8.5	8.2	8.2	8.0
6	10.0	10.0	10.0	10.0	9.0	8.2	8.7	8.5	8.5	8.2	8.0	7.8
8	10.0	10.0	10.0	10.0	9.0	8.3	8.7	8.5	8.5	7.2	8.0	7.8
10	10.0	10.0	10.0	10.0	9.0	8.3	8.7	8.5	7.2	8.2	6.8	6.3
41	10.0	10.0	10.0	9.7	9.0	7.8	8.7	8.5	8.3	8.2	8.0	7.7
43	10.0	10.0	10.0	9.7	9.0	7.8	8.7	8.3	8.2	8.2	7.7	7.5
50	10.0	10.0	9.8	9.7	9.0	7.8	8.7	8.5	8.2	8.3	7.5	7.2
Paint - Solvent, White (3 min or more)												
2	10.0	10.0	10.0	10.0	9.0	8.2	8.7	8.5	8.5	8.2	8.0	7.8
12	10.0	9.7	10.0	9.5	8.8	7.7	8.7	8.5	8.5	8.2	8.0	7.8
Paint - Solvent, Yellow (60 sec)												
5	10.0	10.0	10.0	10.0	9.5	8.4	9.0	8.7	8.8	8.8	8.6	8.3
7	10.0	10.0	10.0	10.0	9.5	8.5	9.0	8.7	8.8	8.8	8.7	8.2
9	10.0	10.0	10.0	10.0	9.5	8.6	9.0	8.7	8.8	8.3	8.5	8.0
11	10.0	10.0	10.0	10.0	9.5	8.4	9.0	8.7	8.7	8.8	8.0	7.7
40	10.0	10.0	10.0	10.0	9.3	8.3	9.3	8.7	8.7	8.5	8.7	8.5
42	10.0	9.8	10.0	9.8	9.3	8.3	9.5	9.2	9.0	8.8	8.7	8.5
52	10.0	10.0	10.0	9.8	9.8	8.0	9.3	9.0	9.0	8.8	8.7	8.3
53	10.0	10.0	9.8	9.7	9.0	7.5	8.7	8.3	8.2	8.5	7.7	7.3
Paint - Solvent, Yellow (3 min or more)												
3	10.0	9.8	10.0	9.8	9.5	8.2	8.8	8.8	8.7	8.8	8.7	8.7
13	10.0	10.0	10.0	10.0	9.5	8.2	9.2	8.7	8.8	8.8	8.3	8.5
Paint - Water, White (60 sec)												
14	10.0	9.7	9.8	9.5	9.3	7.8	8.3	8.7	7.8	7.8	7.5	7.3
16	10.0	9.8	9.8	9.5	9.5	7.7	9.0	8.8	8.2	8.2	8.0	7.3
51	10.0	10.0	9.8	9.7	9.4	7.8	9.0	8.5	7.7	7.3	7.5	7.2
Paint - Water, White (90 sec)												
19	10.0	9.8	9.8	9.5	9.5	7.7	9.0	8.7	8.2	8.2	8.0	7.2
45	10.0	9.7	9.3	9.7	8.8	7.2	9.0	8.2	7.8	7.5	7.7	7.3
Paint - Water, Yellow (60 sec)												
15	10.0	10.0	10.0	10.0	9.3	8.3	9.2	8.8	8.7	8.7	8.5	8.5
17	10.0	9.8	10.0	9.9	9.3	8.0	9.2	8.7	8.7	8.8	8.5	8.5
18	10.0	9.8	9.9	10.0	9.2	8.4	9.2	8.8	8.7	8.7	8.5	8.5
20	10.0	9.8	10.0	9.7	9.5	8.0	9.2	8.8	8.7	8.7	8.7	8.5
25	10.0	10.0	9.6	9.8	9.1	7.8	9.0	8.7	8.5	8.3	8.2	7.8
26	10.0	9.8	9.7	10.0	9.2	8.1	9.2	8.8	8.7	8.7	8.3	8.5
48	10.0	9.9	9.2	9.3	9.2	7.7	9.0	8.3	7.5	7.0	7.2	6.7
49	10.0	9.8	9.8	9.8	9.2	7.8	9.2	8.3	7.8	7.3	7.6	7.4
Paint - Water, Yellow (90 sec)												
44	10.0	9.8	9.8	9.8	9.3	7.8	9.2	8.3	8.7	8.7	8.2	8.3
Paint - Polyester, White (90 sec)												
23	10.0	10.0	8.2	7.7	6.8	4.8	6.2	5.7	4.7	4.7	4.3	4.2
Paint - Polyester, White (30 min)												
21	10.0	10.0	9.5	9.8	8.8	7.6	8.5	7.8	7.6	7.0	6.5	6.3

TABLE 34. Appearance Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Alabama)(continued)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MAR 1990	APRIL 1990
Paint - Polyester, Yellow (90 sec)												
24	10.0	9.7	7.3	6.8	5.0	4.2	4.4	4.4	3.2	3.5	3.5	3.2
Paint - Polyester, Yellow (30 min)												
22	10.0	10.0	10.0	10.0	9.5	8.1	9.2	8.8	8.3	8.0	7.3	7.3
Thermoplastic - White, Alkyd												
47	10.0	10.0	10.0	10.0	10.0	9.2	10.0	10.0	10.0	10.0	9.7	9.7
60	10.0	10.0	9.8	10.0	9.7	8.7	9.7	9.7	9.8	9.7	9.7	9.2
Thermoplastic - White, Hydrocarbon												
35	10.0	10.0	10.0	10.0	10.0	9.2	10.0	10.0	10.0	10.0	9.7	9.7
58	10.0	10.0	10.0	10.0	9.7	9.2	9.8	10.0	10.0	9.7	9.7	9.3
Methacrylate - White												
31	10.0	10.0	10.0	10.0	9.9	9.0	10.0	10.0	9.7	9.3	9.7	9.1
32	10.0	10.0	10.0	10.0	10.0	9.0	10.0	10.0	9.7	9.3	9.3	9.0
Thermoplastic - Yellow, Alkyd												
46	10.0	10.0	10.0	10.0	10.0	9.3	10.0	10.0	10.0	10.0	10.0	10.0
59	10.0	10.0	10.0	10.0	10.0	9.3	10.0	10.0	10.0	10.0	10.0	10.0
Thermoplastic - Yellow, Hydrocarbon												
34	10.0	10.0	10.0	10.0	10.0	9.5	10.0	10.0	10.0	10.0	10.0	10.0
57	10.0	10.0	10.0	10.0	9.7	9.3	10.0	10.0	10.0	10.0	10.0	10.0
Preformed Thermoplastic, White												
1	10.0	9.0	9.0	9.5	9.2	8.5	9.0	9.3	9.0	9.0	9.0	8.7
Permanent Tape, White												
37	10.0	10.0	9.5	9.3	9.3	7.8	8.8	8.8	8.7	8.3	9.0	8.7
55	10.0	10.0	10.0	10.0	9.8	9.0	10.0	10.0	9.7	9.7	9.7	9.3
62	10.0	10.0	10.0	10.0	9.8	8.8	10.0	10.0	9.7	9.7	9.7	9.3
Temporary Tape, White												
30	10.0	10.0	8.8	9.0	9.0	7.5	8.7	8.5	8.3	8.3	7.7	7.7
Permanent Tape, Yellow												
36	10.0	10.0	10.0	9.3	9.5	8.2	9.0	8.8	9.0	9.0	9.3	9.0
56	10.0	10.0	10.0	10.0	9.8	9.0	10.0	10.0	9.7	9.8	10.0	9.7
Temporary Tape, Yellow												
27	10.0	10.0	9.3	9.0	9.0	7.5	8.8	8.5	8.3	8.3	7.7	8.0

TABLE 35. Appearance Data for Unbeaded Paint and Thermoplastic Transverse Lines on Asphalt Pavement (Kentucky)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, White (60 sec)												
4	9.8	9.0	9.2	7.5	8.2	8.0	7.8	7.7	7.7	7.3	7.3	7.2
6	9.7	9.0	9.2	7.7	8.3	8.0	8.0	7.7	7.7	7.2	7.5	7.0
8	9.0	7.8	8.0	7.3	7.7	7.5	7.0	6.7	7.3	6.7	6.8	7.0
10	9.7	8.2	8.2	7.5	7.8	7.7	7.2	7.0	7.3	6.7	7.0	7.0
41	9.7	8.8	8.8	8.0	8.7	8.3	8.2	8.0	7.8	7.3	7.8	7.5
43	9.7	8.8	9.0	8.0	8.3	8.3	8.0	7.5	7.8	7.0	7.7	7.3
50	9.5	9.2	9.3	8.3	9.0	8.7	8.7	8.0	8.0	7.8	8.0	7.7
Paint - Solvent, White (3 min or more)												
2	10.0	9.8	9.7	9.0	9.3	9.3	9.3	9.0	8.8	8.2	8.8	8.5
12	9.8	9.0	8.8	8.2	8.2	8.2	8.3	7.2	7.8	7.0	7.5	7.3
Paint - Solvent, Yellow (60 sec)												
5	9.7	9.7	10.0	9.3	9.3	9.0	8.5	8.3	8.3	8.0	8.0	7.8
7	9.5	9.0	9.2	8.3	9.0	8.8	8.2	7.8	8.0	7.7	7.7	7.5
9	9.5	9.0	9.0	8.7	9.0	9.0	8.2	7.7	7.8	7.3	7.7	7.7
11	9.8	8.8	9.0	9.0	9.0	9.0	7.7	7.7	8.2	7.3	7.7	7.8
40	10.0	9.8	9.7	9.3	9.3	9.7	9.5	9.3	8.5	8.8	8.3	8.3
42	10.0	9.8	10.0	9.3	9.3	9.7	9.5	8.3	8.3	8.3	7.7	7.8
52	9.8	9.7	10.0	9.0	9.7	9.7	9.3	8.7	9.0	8.5	8.2	8.2
53	9.7	9.7	10.0	9.0	9.3	9.0	8.8	8.2	7.7	7.0	7.2	6.7
Paint - Solvent, Yellow (3 min or more)												
3	9.8	9.5	9.7	9.0	9.7	9.2	9.3	8.2	8.7	7.3	7.3	7.5
13	9.8	9.5	9.5	9.0	9.7	9.0	9.2	7.8	8.8	7.8	8.2	8.0
Paint - Water, White (60 sec)												
14	10.0	9.8	10.0	9.3	10.0	9.3	9.7	9.3	8.8	8.7	8.8	8.5
16	10.0	9.7	9.7	9.3	9.3	9.0	9.5	9.0	8.7	8.5	8.8	8.5
51	9.7	9.2	9.5	8.7	9.3	8.7	9.0	8.3	8.3	8.3	8.0	7.7
Paint - Water, White (90 sec)												
19	10.0	9.7	9.7	9.3	9.3	9.0	9.2	8.3	8.3	8.3	8.0	8.3
45	10.0	9.7	9.2	9.2	9.5	9.2	9.3	9.0	8.8	8.5	8.5	8.5
Paint - Water, Yellow (60 sec)												
15	9.8	9.8	10.0	9.3	10.0	9.7	9.2	9.0	9.0	8.0	8.5	8.7
17	9.8	9.8	10.0	9.7	10.0	9.7	9.3	9.3	9.2	8.2	8.7	9.0
18	9.7	9.7	10.0	9.3	10.0	9.5	9.3	8.7	9.0	8.7	8.8	9.0
20	10.0	9.7	10.0	9.7	10.0	9.7	9.3	9.3	9.2	8.2	8.7	9.0
25	9.8	9.7	10.0	9.3	10.0	9.5	9.2	8.5	8.8	8.5	8.7	8.8
26	9.8	9.7	10.0	9.3	10.0	9.7	9.2	8.7	8.8	8.2	8.7	8.8
48	9.8	9.7	9.8	9.0	9.7	9.0	9.3	8.7	8.5	8.3	8.3	8.7
49	9.8	9.8	9.7	9.3	9.7	9.0	9.3	8.7	8.5	8.3	8.3	8.3
Paint - Water, Yellow (90 sec)												
44	10.0	9.5	9.3	9.5	9.7	9.2	9.2	8.5	8.8	8.2	8.3	8.8
Paint - Polyester, White (90 sec)												
23	10.0	10.0	9.5	9.3	10.0	9.5	9.7	9.3	8.8	9.0	9.0	9.3
Paint - Polyester, White (30 min)												
21	10.0	10.0	10.0	9.3	10.0	9.7	9.7	9.3	8.8	8.8	9.0	9.0

TABLE 35. Appearance Data for Unbeaded Paint and Thermoplastic Transverse Lines on Asphalt Pavement (Kentucky)(continued)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Polyester, Yellow (90 sec)												
24	10.0	10.0	9.7	9.3	10.0	9.7	9.7	9.3	9.0	9.0	9.2	9.3
Paint - Polyester, Yellow (30 min)												
22	10.0	9.8	9.8	9.3	10.0	9.7	9.5	9.3	9.0	9.3	9.0	9.3
Thermoplastic - White, Alkyd												
47	9.8	9.7	9.8	9.8	9.8	10.0	10.0	9.3	9.3	9.0	9.0	9.0
60	9.7	9.3	9.7	9.7	9.7	9.8	9.3	8.7	9.2	8.8	8.7	8.5
Thermoplastic - White, Hydrocarbon												
35	9.8	9.5	9.8	9.8	9.8	10.0	9.7	9.0	9.3	9.0	9.0	9.0
58	9.8	9.5	9.8	9.2	9.5	9.7	8.8	8.3	9.0	8.3	8.3	8.0
Methacrylate - White												
31	10.0	9.8	9.8	9.8	9.8	10.0	9.7	9.2	9.3	9.0	9.7	8.7
32	10.0	9.8	10.0	9.8	9.8	10.0	9.7	9.0	9.3	9.0	9.7	8.7
Thermoplastic - Yellow, Alkyd												
46	9.7	9.5	9.8	9.8	9.8	10.0	9.3	8.5	9.0	8.3	8.3	8.0
59	9.8	9.7	9.8	9.8	9.5	10.0	9.3	9.0	9.3	9.3	9.3	8.7
Thermoplastic - Yellow, Hydrocarbon												
34	10.0	9.7	9.8	10.0	10.0	10.0	9.8	9.3	9.3	9.3	9.0	9.0
57	9.7	9.5	9.8	9.8	9.8	10.0	9.2	8.5	9.0	8.7	8.7	8.0
Preformed Thermoplastic, White												
1	9.3	9.0	9.0	8.3	8.7	8.7	8.3	7.7	8.2	7.7	8.0	7.0

TABLE 36. Appearance Data for Unbeaded Paint and Thermoplastic Transverse Lines on Asphalt Pavement (Alabama)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MAR 1990	APRIL 1990
Paint - Solvent, White (60 sec)												
4	10.0	9.7	9.0	9.3	9.0	9.0	8.0	8.3	8.3	8.2	7.7	7.3
6	10.0	9.7	9.0	9.7	9.0	9.0	8.0	8.3	8.3	7.7	7.3	7.3
8	10.0	10.0	9.0	9.7	9.0	9.0	8.0	8.3	8.3	7.8	7.3	7.3
10	10.0	10.0	9.6	9.7	9.0	9.0	8.0	8.3	8.3	7.7	7.3	7.3
41	10.0	10.0	9.3	10.0	9.3	9.7	8.3	9.0	8.7	7.8	8.0	7.3
43	10.0	10.0	9.3	9.7	9.0	9.3	8.3	9.0	8.3	8.0	8.3	7.3
50	10.0	10.0	9.7	10.0	9.7	9.7	8.3	9.0	8.7	8.7	8.3	7.7
Paint - Solvent, White (3 min or more)												
2	10.0	10.0	9.3	10.0	9.0	9.0	8.0	8.7	8.3	7.7	7.7	7.3
12	10.0	10.0	9.3	9.7	9.3	9.3	8.0	8.7	8.3	8.0	7.7	7.3
Paint - Solvent, Yellow (60 sec)												
5	10.0	9.7	9.3	10.0	9.0	9.0	8.3	9.0	8.7	8.3	8.0	8.0
7	10.0	10.0	9.3	10.0	9.0	9.0	8.3	9.0	8.7	8.3	8.0	8.0
9	10.0	9.7	9.3	9.7	9.0	9.0	8.3	8.7	8.7	8.7	8.0	8.0
11	10.0	10.0	8.3	9.7	9.0	9.0	8.3	8.7	8.7	8.7	7.7	8.0
40	10.0	10.0	9.3	10.0	9.0	9.7	8.3	8.7	9.0	8.0	7.7	7.7
42	10.0	10.0	9.3	10.0	9.3	9.7	8.3	9.0	9.0	8.0	8.3	8.0
52	10.0	10.0	9.7	10.0	9.3	9.7	8.3	9.0	9.0	8.3	8.7	8.7
53	10.0	10.0	9.6	10.0	9.3	9.7	8.3	9.0	8.7	8.3	8.7	8.0
Paint - Solvent, Yellow (3 min or more)												
3	10.0	10.0	9.3	9.7	9.0	9.3	8.3	9.0	9.0	8.3	8.0	8.0
13	10.0	10.0	9.3	9.7	9.3	9.7	8.3	9.0	8.7	8.3	8.0	8.0
Paint - Water, White (60 sec)												
14	10.0	10.0	7.3	7.0	6.0	5.3	5.3	5.3	4.3	4.5	4.7	5.3
16	10.0	10.0	8.5	8.8	8.3	8.3	8.0	7.0	5.3	6.2	6.0	5.7
51	10.0	9.2	6.6	6.7	6.3	5.7	5.7	6.3	5.7	5.2	5.3	4.7
Paint - Water, White (90 sec)												
19	10.0	10.0	9.2	9.0	8.3	9.0	8.0	7.7	6.3	6.7	7.0	7.0
45	10.0	7.7	5.0	5.3	4.3	4.3	3.7	4.7	4.3	4.2	4.7	4.7
Paint - Water, Yellow (60 sec)												
15	10.0	8.8	6.7	6.3	5.3	5.0	5.0	5.0	4.7	4.7	4.7	4.7
17	10.0	10.0	9.0	8.7	8.3	8.3	7.7	7.3	6.7	7.3	7.3	6.7
18	10.0	9.7	7.3	6.7	6.0	6.3	6.7	5.7	5.0	6.3	5.7	5.7
20	10.0	8.3	6.0	6.3	5.3	5.7	5.3	4.7	4.3	5.5	5.0	5.0
25	10.0	8.2	5.0	6.0	5.7	4.7	4.3	4.3	4.0	4.3	4.3	4.3
26	10.0	8.0	5.3	6.3	5.7	4.3	4.3	4.3	3.7	4.3	4.0	4.7
48	10.0	8.7	5.6	6.0	5.3	4.7	4.7	4.7	4.7	4.7	5.0	4.7
49	10.0	9.0	7.0	7.0	6.3	6.0	6.7	6.0	5.3	4.3	5.0	5.3
Paint - Water, Yellow (90 sec)												
44	10.0	7.8	5.6	5.7	4.7	4.3	4.7	4.7	4.3	4.3	4.7	4.7
Paint - Polyester, White (90 sec)												
23	10.0	7.0	6.6	6.0	5.7	4.7	4.7	5.0	4.7	4.7	5.3	5.3
Paint - Polyester, White (30 min)												
21	10.0	9.7	9.3	9.3	9.3	8.7	8.7	8.0	7.3	7.3	7.3	7.3

TABLE 36. Appearance Data for Unbeaded Paint and Thermoplastic Transverse Lines on Asphalt Pavement (Alabama)(continued)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MAR 1990	APRIL 1990
Paint - Polyester, Yellow (90 sec)												
24	10.0	7.0	6.0	6.3	5.7	4.7	4.7	4.3	4.0	4.5	4.7	5.0
Paint - Polyester, Yellow (30 min)												
22	10.0	10.0	9.2	8.7	8.3	8.0	8.0	7.7	7.0	7.5	7.0	7.7
Thermoplastic - White, Alkyd												
47	10.0	10.0	10.0	10.0	10.0	10.0	9.0	10.0	9.7	10.0	10.0	10.0
60	10.0	10.0	10.0	9.7	9.7	10.0	8.7	10.0	9.7	10.0	9.7	9.3
Thermoplastic - White, Hydrocarbon												
35	10.0	10.0	10.0	10.0	10.0	10.0	9.0	10.0	9.7	10.0	10.0	10.0
58	10.0	10.0	10.0	9.7	10.0	10.0	8.7	10.0	9.7	10.0	9.7	9.0
Methacrylate - White												
31	10.0	10.0	10.0	10.0	10.0	10.0	8.7	10.0	9.7	10.0	9.7	10.0
32	10.0	10.0	10.0	10.0	10.0	10.0	8.7	10.0	9.7	10.0	9.7	9.7
Thermoplastic - Yellow, Alkyd												
46	10.0	10.0	10.0	10.0	10.0	10.0	9.0	10.0	9.7	10.0	10.0	9.7
59	10.0	10.0	10.0	10.0	10.0	10.0	8.7	10.0	9.7	10.0	10.0	10.0
Thermoplastic - Yellow, Hydrocarbon												
34	10.0	10.0	10.0	10.0	10.0	10.0	9.0	10.0	9.7	10.0	10.0	10.0
57	10.0	10.0	10.0	10.0	10.0	10.0	8.3	10.0	9.7	10.0	10.0	10.0
Preformed Thermoplastic, White												
1	10.0	10.0	10.0	9.3	9.7	9.0	8.0	9.0	9.3	9.0	9.0	9.0

TABLE 37. Appearance Data for Unbeaded Paint and Thermoplastic Transverse Lines on Portland Cement Concrete Pavement (Kentucky)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, White (60 sec)												
4	8.8	9.3	8.3	7.7	8.3	8.3	8.3	8.7	8.3	8.0	8.0	7.7
6	9.3	9.3	8.3	7.7	8.0	8.0	8.5	8.0	8.2	7.0	7.0	6.7
8	9.0	9.5	8.8	7.8	8.2	8.0	8.7	7.8	7.8	7.5	7.5	6.5
10	9.3	9.7	9.0	8.2	8.5	8.3	8.7	7.0	7.3	6.3	6.3	5.5
41	9.5	10.0	10.0	9.3	10.0	9.0	9.7	8.8	8.2	8.3	8.2	8.0
43	9.3	10.0	10.0	9.3	9.7	9.3	9.7	9.0	8.5	8.3	8.3	8.3
50	9.7	10.0	9.5	8.8	9.3	9.3	9.3	8.7	8.0	7.7	7.7	7.3
Paint - Solvent, White (3 min or more)												
2	10.0	10.0	10.0	9.7	10.0	9.3	9.7	9.7	8.8	9.0	8.8	8.3
12	9.7	10.0	9.8	8.7	9.0	8.7	9.7	7.7	7.8	7.3	7.0	7.0
Paint - Solvent, Yellow (60 sec)												
5	9.3	9.7	9.3	8.7	8.7	8.2	8.3	8.0	7.5	7.3	7.2	6.3
7	9.0	9.7	9.2	8.7	8.7	8.0	8.3	8.0	7.0	7.0	6.8	6.3
9	9.7	10.0	9.8	9.3	9.3	8.8	8.7	8.3	7.7	7.0	7.2	6.7
11	9.3	10.0	9.3	8.3	8.7	8.2	8.3	7.5	7.3	6.3	6.7	6.0
40	8.8	9.7	9.7	9.3	9.7	9.0	9.3	9.0	8.3	8.7	8.5	7.7
42	9.5	10.0	10.0	9.7	9.7	9.2	9.5	9.3	8.3	8.3	8.3	8.3
52	9.8	10.0	10.0	9.7	10.0	9.7	9.7	9.3	8.7	8.7	8.5	8.2
53	9.3	10.0	10.0	9.3	9.7	9.0	9.0	9.0	8.3	8.0	8.0	7.0
Paint - Solvent, Yellow (3 min or more)												
3	9.2	10.0	9.8	9.0	9.3	8.7	8.8	7.8	7.5	7.2	7.5	6.7
13	8.8	10.0	10.0	8.8	8.8	8.5	9.5	8.5	8.2	7.2	7.7	6.3
Paint - Water, White (60 sec)												
14	10.0	10.0	10.0	9.7	10.0	9.5	9.5	9.7	8.3	8.7	8.7	8.7
16	10.0	10.0	10.0	9.7	10.0	9.3	9.5	9.7	8.3	8.7	8.7	8.7
51	8.5	9.3	8.7	8.3	8.7	8.0	8.5	9.0	8.0	8.0	8.0	8.0
Paint - Water, White (90 sec)												
19	10.0	10.0	10.0	9.7	10.0	9.3	9.5	9.3	8.3	8.3	8.3	8.0
45	9.0	9.3	8.8	8.3	8.7	8.3	9.0	8.7	7.3	8.0	8.0	7.7
Paint - Water, Yellow (60 sec)												
15	10.0	10.0	10.0	9.7	9.7	8.8	9.0	8.8	8.0	8.3	7.7	7.7
17	10.0	10.0	10.0	9.7	10.0	8.8	9.2	8.8	8.0	8.3	7.7	7.7
18	10.0	10.0	10.0	9.7	9.7	8.5	8.8	8.5	8.0	7.7	7.7	8.0
20	10.0	10.0	10.0	9.5	9.8	9.0	8.8	8.7	8.0	7.7	8.0	8.0
25	10.0	10.0	10.0	9.3	9.7	8.3	8.8	8.7	7.7	7.8	7.8	7.0
26	9.7	10.0	10.0	9.3	9.7	8.3	8.8	8.3	7.5	7.7	7.7	7.0
48	8.7	9.5	8.8	8.2	9.2	8.3	8.7	8.3	7.7	7.3	7.7	7.7
49	9.2	9.7	9.2	8.7	9.2	9.0	9.2	8.7	8.0	8.0	8.0	8.3
Paint - Water, Yellow (90 sec)												
44	9.3	10.0	9.5	9.3	9.7	9.3	9.7	8.3	7.7	8.0	8.0	7.7
Paint - Polyester, White (90 sec)												
23	9.5	9.7	9.5	9.3	9.3	8.7	9.3	9.3	8.3	8.3	8.3	8.3
Paint - Polyester, White (30 min)												
21	9.8	10.0	9.5	9.3	10.0	9.3	9.7	9.0	8.0	8.3	8.0	8.0

TABLE 37. Appearance Data for Unbeaded Paint and Thermoplastic Transverse Lines on Portland Cement Concrete Pavement (Kentucky)
(continued)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Polyester, Yellow (90 sec)												
24	9.3	9.7	9.0	8.7	9.2	8.8	9.3	9.0	8.0	8.3	8.3	8.7
Paint - Polyester, Yellow (30 min)												
22	9.5	9.8	9.2	8.8	9.2	8.8	9.5	8.8	8.5	8.3	8.5	8.7
Thermoplastic - White, Alkyd												
47	9.5	10.0	9.3	9.5	9.5	9.7	9.7	9.3	9.3	8.3	8.7	8.0
60	10.0	10.0	9.3	9.3	9.8	9.7	9.7	9.5	8.7	8.3	8.7	8.0
Thermoplastic - White, Hydrocarbon												
35	9.8	10.0	9.8	9.7	9.7	9.7	9.7	9.0	9.0	8.0	8.3	8.0
58	10.0	9.3	8.8	8.3	8.7	8.7	8.7	8.3	8.0	7.0	7.5	7.0
Methacrylate - White												
31*	---	---	---	---	---	---	---	---	---	---	---	---
32	10.0	9.3	8.3	7.7	8.0	8.3	8.8	8.0	7.5	6.7	7.0	6.7
Thermoplastic - Yellow, Alkyd												
46	9.8	10.0	10.0	9.7	9.7	9.0	9.2	8.7	8.2	7.7	7.7	7.3
59	9.2	10.0	9.7	9.7	9.7	9.3	9.7	9.2	9.3	8.3	8.7	8.3
Thermoplastic - Yellow, Hydrocarbon												
34	9.7	10.0	10.0	9.7	9.7	9.3	9.5	9.0	9.0	8.3	8.0	7.7
57	9.2	9.8	9.7	9.0	9.0	9.2	9.3	8.8	8.3	7.7	7.7	7.7
Preformed Thermoplastic, White												
1	10.0	9.5	8.7	7.8	8.2	8.5	8.5	8.0	8.0	7.0	7.5	7.0

* White methacrylate #31 was not available for the PCC pavement.

TABLE 38. Appearance Data for Unbeaded Paint and Thermoplastic Transverse Lines on Portland Cement Concrete Pavement (Alabama)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MAR 1990	APRIL 1990
Paint - Solvent, White (60 sec)												
4	10.0	10.0	10.0	10.0	9.7	8.3	9.3	9.0	8.7	9.0	8.0	8.3
6	10.0	10.0	10.0	10.0	9.7	8.3	9.3	9.0	8.7	9.0	7.7	8.3
8	10.0	10.0	10.0	10.0	9.0	8.0	9.3	9.0	8.3	9.0	8.0	8.3
10	10.0	10.0	10.0	10.0	9.7	8.0	9.3	9.0	8.3	8.0	7.7	7.7
41	10.0	10.0	10.0	10.0	10.0	8.0	9.3	8.7	8.3	8.7	8.0	8.0
43	10.0	10.0	10.0	10.0	10.0	8.3	9.3	8.7	9.0	8.7	8.0	8.3
50	10.0	10.0	10.0	10.0	10.0	8.0	9.3	8.7	8.3	8.7	8.0	8.7
Paint - Solvent, White (3 min or more)												
2	10.0	10.0	10.0	10.0	10.0	8.7	9.7	9.0	8.7	8.7	8.0	8.0
12	10.0	10.0	10.0	10.0	9.7	8.7	9.3	9.0	9.0	9.3	8.7	8.7
Paint - Solvent, Yellow (60 sec)												
5	10.0	10.0	10.0	10.0	9.7	8.7	9.3	9.0	8.3	9.0	8.0	8.3
7	10.0	10.0	10.0	10.0	9.7	8.3	9.3	9.0	9.0	9.0	8.0	8.3
9	10.0	10.0	10.0	10.0	9.7	8.7	9.3	9.0	9.0	9.0	8.0	8.3
11	10.0	10.0	10.0	10.0	9.7	8.7	9.3	9.0	9.0	9.0	8.0	8.3
40	8.7	10.0	10.0	10.0	10.0	8.3	9.3	8.7	8.7	8.7	8.3	8.3
42	10.0	10.0	10.0	10.0	9.7	8.3	9.3	8.7	9.0	8.7	8.3	8.7
52	10.0	10.0	10.0	10.0	10.0	8.7	9.3	8.7	9.0	8.7	8.7	8.7
53	10.0	10.0	10.0	10.0	9.7	8.7	9.3	8.7	9.0	8.7	8.0	8.0
Paint - Solvent, Yellow (3 min or more)												
3	10.0	10.0	10.0	10.0	10.0	9.3	10.0	9.0	8.7	9.3	9.0	8.3
13	10.0	10.0	10.0	10.0	10.0	8.7	9.3	9.0	8.7	8.7	7.7	8.0
Paint - Water, White (60 sec)												
14	10.0	10.0	9.7	10.0	9.3	8.3	9.7	8.3	7.3	7.0	6.7	6.7
16	10.0	10.0	9.7	10.0	9.3	8.3	9.7	8.7	7.3	7.7	7.3	7.3
51	10.0	10.0	8.3	8.3	7.3	6.3	8.0	6.3	5.7	5.7	5.3	5.0
Paint - Water, White (90 sec)												
19	10.0	10.0	9.7	10.0	9.3	8.3	9.7	8.7	7.3	7.7	7.3	7.7
45	10.0	10.0	8.3	8.0	7.3	6.7	8.3	6.7	6.0	5.7	6.3	5.7
Paint - Water, Yellow (60 sec)												
15	10.0	10.0	9.7	9.7	9.0	8.3	9.7	8.7	8.7	9.0	7.7	7.7
17	10.0	10.0	9.7	10.0	9.3	8.3	9.7	9.0	8.7	8.7	8.0	8.0
18	10.0	10.0	9.3	9.3	9.0	8.0	9.0	8.0	7.3	7.0	7.0	6.3
20	10.0	10.0	9.7	10.0	9.3	8.7	9.7	8.3	8.0	8.0	7.7	7.7
25	10.0	10.0	8.7	8.3	8.0	7.0	8.3	6.7	7.0	6.3	6.3	6.0
26	10.0	10.0	9.3	9.3	8.7	8.3	9.0	7.7	7.3	6.7	6.7	6.3
48	10.0	10.0	8.3	8.0	7.3	6.3	8.0	6.7	6.0	5.7	5.7	5.0
49	10.0	9.3	8.3	8.0	7.3	6.3	8.0	6.7	6.0	5.7	5.7	5.3
Paint - Water, Yellow (90 sec)												
44	10.0	9.7	8.3	8.0	7.3	6.3	8.0	6.7	6.0	6.0	6.0	5.7
Paint - Polyester, White (90 sec)												
23	10.0	9.3	7.0	5.3	4.0	3.3	2.0	2.3	1.3	1.7	1.7	1.7
Paint - Polyester, White (30 min)												
21	10.0	10.0	9.3	8.7	8.3	7.0	8.3	7.0	7.0	6.3	6.3	6.3

TABLE 38. Appearance Data for Unbeaded Paint and Thermoplastic Transverse Lines on Portland Cement Concrete Pavement (Alabama)
(continued)

SAMPLE NUMBER	SUBJECTIVE RATINGS											
	MAY 1989	JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	DEC 1990	JAN 1990	FEB 1990	MAR 1990	APRIL 1990
Paint - Polyester, Yellow (90 sec)												
24	8.0	9.3	6.3	3.7	3.0	2.3	1.7	1.3	1.3	1.3	1.3	1.3
Paint - Polyester, Yellow (30 min)												
22	10.0	10.0	10.0	9.3	8.7	8.7	8.3	7.3	6.7	6.7	6.3	6.7
Thermoplastic - White, Alkyd												
47	10.0	10.0	10.0	10.0	10.0	9.7	10.0	10.0	10.0	10.0	10.0	10.0
60	10.0	10.0	9.7	10.0	10.0	9.3	10.0	10.0	10.0	10.0	10.0	10.0
Thermoplastic - White, Hydrocarbon												
35	10.0	10.0	10.0	10.0	10.0	9.7	10.0	10.0	10.0	10.0	10.0	10.0
58	10.0	10.0	9.7	10.0	10.0	9.7	10.0	10.0	10.0	10.0	10.0	10.0
Methacrylate - White												
31	10.0	10.0	10.0	10.0	10.0	9.0	10.0	9.7	9.7	9.3	9.3	9.0
32	10.0	10.0	10.0	10.0	10.0	9.0	10.0	9.7	9.7	9.3	9.3	9.0
Thermoplastic - Yellow, Alkyd												
46	10.0	10.0	10.0	10.0	9.7	9.3	10.0	10.0	10.0	10.0	10.0	10.0
59	10.0	10.0	10.0	10.0	9.7	9.3	10.0	10.0	10.0	10.0	10.0	10.0
Thermoplastic - Yellow, Hydrocarbon												
34	10.0	10.0	10.0	10.0	10.0	9.7	10.0	10.0	10.0	10.0	10.0	10.0
57	10.0	10.0	10.0	10.0	9.7	9.0	9.7	10.0	10.0	10.0	10.0	10.0
Preformed Thermoplastic, White												
1	10.0	10.0	9.7	9.3	9.3	8.0	8.7	9.3	9.0	9.0	9.0	9.0

TABLE 39. Colormeter Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Kentucky)

SAMPLE NUMBER	COLORMETER MEASUREMENT											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, White (60 sec)												
4*	75.2	39.7	35.4	35.2	30.0	32.2	26.0	42.0	39.2	35.2	34.9	33.7
	75.4	45.5	35.4	36.4	33.0	32.7	28.2	39.2	37.1	35.2	35.6	33.7
6	70.1	41.5	38.7	35.1	30.9	32.4	28.0	42.1	39.7	33.0	37.0	30.6
	72.6	48.2	36.2	36.6	33.7	35.2	29.0	37.1	37.2	33.4	31.7	31.2
8	78.1	44.7	38.8	36.4	33.4	34.4	24.0	46.1	40.1	34.6	36.5	31.8
	78.2	45.7	35.9	36.3	35.3	34.9	25.4	42.0	38.8	34.5	36.1	35.6
10	74.2	43.0	34.7	32.4	24.3	33.1	22.4	33.0	32.2	29.0	27.7	26.0
	74.5	48.0	34.7	35.8	33.0	35.8	23.4	37.2	32.6	30.5	34.3	28.4
41	45.1	40.4	34.4	33.2	31.2	32.7	29.2	35.8	33.4	24.4	27.1	22.2
	45.9	44.1	32.1	30.8	28.2	30.5	25.3	38.1	28.2	26.4	28.1	27.0
43	44.2	41.8	37.6	35.7	31.2	28.4	24.7	31.8	30.2	25.1	20.7	23.7
	49.4	44.7	33.1	33.8	34.2	35.7	25.6	36.4	31.2	28.7	31.6	28.3
50	73.8	47.6	39.9	37.0	32.5	33.2	33.3	40.2	34.7	28.3	34.0	27.9
	74.4	52.1	43.5	40.0	35.4	35.7	35.6	42.7	39.4	37.6	35.4	35.7
Paint - Solvent, White (3 min or more)												
2	71.5	46.6	37.8	35.1	32.1	34.2	30.5	44.1	37.1	35.7	38.2	32.3
	74.0	49.4	38.3	38.3	34.0	33.5	30.1	40.1	35.4	34.7	33.9	32.0
12	66.7	37.6	30.5	27.8	27.1	30.2	24.6	45.1	43.7	38.4	40.6	34.0
	69.0	42.1	29.4	30.0	28.2	28.4	25.3	35.7	33.4	35.2	32.5	31.2
Paint - Solvent, Yellow (60 sec)												
5	33.1	35.1	25.9	26.7	25.3	25.2	21.8	34.2	31.0	28.0	27.5	26.4
	34.6	32.3	23.3	25.6	25.1	24.4	19.1	29.1	27.8	24.9	26.5	24.5
7	29.2	28.9	21.5	21.9	20.8	20.3	18.9	26.3	22.9	20.0	23.6	19.8
	30.5	30.0	21.5	22.1	19.6	21.3	19.5	23.2	22.5	20.0	21.2	19.3
9	31.1	28.4	21.9	22.3	21.4	24.0	19.3	28.7	24.6	22.9	25.3	21.9
	30.6	30.3	21.7	21.6	21.3	20.5	19.0	23.9	22.1	21.1	22.2	19.8
11	27.8	27.9	20.9	21.0	19.2	20.0	17.9	25.1	22.8	18.9	20.5	17.4
	29.6	29.3	20.6	19.5	18.7	20.3	18.5	23.8	21.9	19.2	19.3	18.8
40	26.9	29.1	22.5	22.9	22.3	23.6	22.3	25.8	23.2	19.5	22.4	18.1
	29.4	32.0	21.9	21.6	19.8	20.4	20.7	24.8	23.0	21.3	22.5	19.0
42	27.7	32.1	22.4	22.5	19.4	20.6	18.3	20.6	17.6	17.5	21.5	15.8
	30.6	30.8	23.2	22.1	20.8	23.3	19.6	24.5	20.3	18.3	21.0	22.4
52	45.0	32.7	27.3	25.2	23.3	23.4	23.3	40.4	24.0	16.8	21.3	17.4
	45.9	33.0	25.9	25.4	22.9	22.5	20.9	26.9	25.2	22.3	22.4	20.6
53	48.3	34.2	29.7	26.8	22.5	20.9	20.4	27.6	23.3	22.2	21.8	19.6
	48.8	37.8	29.0	28.3	24.1	26.1	22.2	26.1	25.0	23.9	24.8	22.0

TABLE 39. Colormeter Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Kentucky)
(continued)

SAMPLE NUMBER	COLORMETER MEASUREMENT											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, Yellow (3 min or more)												
3	41.6	29.5	22.7	22.9	21.7	22.5	23.3	27.9	25.6	23.2	24.2	21.1
	43.6	30.4	23.2	23.7	21.0	21.9	21.4	25.4	22.3	20.9	22.2	19.9
13	41.5	28.1	19.9	20.3	19.4	18.8	16.6	28.0	25.6	23.0	29.2	21.0
	42.1	29.6	20.8	21.3	18.0	19.8	18.7	24.7	23.2	20.3	23.5	19.7
Paint - Water, White (60 sec)												
14	59.2	55.5	45.7	47.1	37.2	49.1	45.6	63.7	53.4	46.6	51.6	45.7
	62.4	54.5	44.8	51.6	48.2	48.7	51.4	56.6	49.4	48.5	43.4	46.8
16	53.3	51.3	42.8	44.5	41.3	46.3	43.8	57.6	50.3	46.1	48.7	40.4
	57.4	51.7	41.7	43.7	43.5	43.6	42.5	48.9	44.5	40.7	43.4	41.9
51	74.1	49.1	41.0	38.0	39.7	32.9	33.9	45.5	41.9	34.5	30.9	22.4
	73.4	50.6	41.1	45.3	41.7	37.3	38.5	44.8	41.4	34.5	34.5	21.3
Paint - Water, White (90 sec)												
19	50.5	46.4	39.0	37.0	39.5	42.0	38.5	47.8	44.6	36.0	41.3	37.2
	56.4	50.3	34.3	40.2	38.9	40.9	39.1	46.3	42.2	37.4	42.0	36.2
45	44.9	41.6	35.9	37.2	34.6	37.8	37.7	45.3	42.0	37.2	40.8	36.8
	51.1	45.3	35.9	36.5	30.1	35.8	33.8	40.7	39.1	37.3	37.1	31.9
Paint - Water, Yellow (60 sec)												
15	35.9	36.3	29.5	30.2	25.8	31.0	31.0	37.7	35.5	28.4	32.5	28.6
	37.4	36.4	28.5	30.8	33.0	31.3	31.0	35.0	31.8	30.1	32.9	29.1
17	35.1	35.3	29.1	26.2	27.6	28.3	29.8	35.2	31.7	28.6	30.2	27.5
	35.9	36.4	26.8	28.3	27.7	28.9	30.1	33.0	31.2	27.7	30.6	27.7
18	33.0	34.0	27.8	23.9	24.0	26.2	28.5	34.6	32.0	27.6	24.3	27.2
	35.6	35.2	27.4	29.0	28.6	29.4	27.9	32.5	31.1	27.5	29.4	27.0
20	30.0	28.9	24.0	21.3	20.4	22.3	22.4	28.2	26.3	21.7	23.7	22.5
	31.2	32.3	22.2	23.0	20.5	22.8	22.6	25.3	23.9	22.0	22.9	21.0
25	27.7	28.6	22.7	21.5	17.8	20.6	20.7	27.6	24.8	22.5	24.8	20.7
	30.1	31.0	21.5	21.9	21.2	22.8	21.7	23.8	24.7	20.7	23.4	21.0
26	30.7	30.9	24.6	25.2	20.3	24.4	21.8	29.4	26.6	25.2	26.6	22.6
	32.1	33.4	24.4	25.9	25.4	26.3	24.5	25.8	25.4	24.4	25.5	22.3
48	48.5	36.7	31.5	31.4	28.4	25.7	21.1	34.5	32.8	29.7	28.8	25.4
	48.9	38.6	30.4	31.9	31.2	31.5	30.6	34.1	32.1	26.8	25.8	24.7
49	50.6	38.6	31.8	32.0	28.0	24.7	25.4	33.5	33.8	31.1	26.1	23.7
	50.5	39.1	28.3	33.2	31.6	29.0	32.0	35.9	32.6	30.4	26.6	27.2
Paint - Water, Yellow (90 sec)												
44	28.1	29.0	21.9	21.1	21.7	20.5	23.8	26.2	24.5	21.8	24.9	23.1
	29.2	30.3	22.7	21.5	19.7	20.8	22.0	24.3	22.1	20.3	21.0	20.5

TABLE 39. Colormeter Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Kentucky)
(continued)

SAMPLE NUMBER	COLORMETER MEASUREMENT											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Polyester, White (90 sec)												
23	68.5	46.3	39.4	38.8	35.3	35.2	37.9	48.1	42.6	42.6	41.5	34.0
	69.6	45.4	38.7	39.4	33.8	34.4	34.8	49.4	45.0	41.7	42.0	34.4
Paint - Polyester, White (30 min)												
21	67.4	49.9	43.8	42.7	38.3	40.9	36.7	50.1	47.9	41.9	45.1	35.2
	67.1	49.9	41.4	40.5	39.5	39.8	41.0	50.7	49.1	45.2	45.6	40.3
Paint - Polyester, Yellow (90 sec)												
24	41.2	27.5	25.0	21.9	18.3	17.2	19.0	28.7	27.0	24.9	25.1	19.5
	41.2	30.4	21.9	22.8	20.4	22.3	19.9	27.3	25.1	23.8	24.0	22.7
Paint - Polyester, Yellow (30 min)												
22	38.8	29.8	23.5	22.3	18.6	21.4	19.2	24.5	24.7	24.2	22.4	19.8
	39.6	30.9	23.8	24.6	23.1	23.3	23.8	28.8	27.0	24.8	26.2	24.1
Thermoplastic - White, Alkyd												
47	55.1	52.2	51.4	52.4	49.8	53.2	53.2	71.2	65.3	60.5	63.4	56.2
	54.5	53.1	50.3	54.2	44.0	51.9	48.9	69.8	63.1	60.3	65.1	55.4
60	70.6	54.7	51.8	56.0	51.8	48.8	41.6	59.2	56.2	52.8	49.5	46.9
	68.2	55.7	49.3	55.7	49.1	54.2	46.9	59.5	56.6	51.8	57.6	49.8
Thermoplastic - White, Hydrocarbon												
35	54.6	52.8	55.2	61.8	55.3	55.5	51.9	67.0	64.4	60.0	64.3	54.9
	53.7	52.4	55.0	57.5	50.0	54.6	44.8	66.1	62.7	61.7	66.1	59.1
58	72.7	49.2	51.6	52.1	48.5	44.2	43.9	66.9	61.0	58.4	59.1	49.0
	74.7	52.8	51.2	50.2	47.3	51.0	43.2	61.6	56.4	54.5	58.7	48.5
Methacrylate - White												
31	77.5	69.4	61.4	64.5	64.1	54.5	60.0	68.8	64.1	57.5	62.9	51.9
	79.0	63.9	57.2	61.2	60.3	62.1	64.6	69.7	64.6	59.6	68.1	60.2
32	75.6	62.8	49.1	57.1	57.4	45.7	51.0	63.4	57.7	53.6	55.3	47.7
	73.8	61.4	50.0	58.9	57.0	58.1	58.4	61.2	57.5	52.3	59.8	53.5
Thermoplastic - Yellow, Alkyd												
46	36.8	36.7	31.5	32.5	32.0	32.1	29.3	54.2	36.3	37.1	40.9	35.9
	36.5	36.3	26.6	31.0	31.1	33.0	28.5	41.5	38.9	34.9	40.6	35.8
59	46.1	37.0	34.4	34.3	31.6	27.4	27.1	39.1	37.6	35.2	37.0	31.5
	44.7	38.1	32.6	35.6	33.6	35.6	29.2	39.8	38.4	35.3	38.5	34.0
Thermoplastic - Yellow, Hydrocarbon												
34	36.5	35.7	31.5	34.6	32.3	35.3	29.1	41.3	37.3	36.4	39.2	33.0
	36.6	36.3	28.2	29.7	30.7	33.1	27.8	38.6	37.1	33.7	40.2	35.3
57	39.0	33.4	39.8	30.4	28.4	25.7	26.9	38.7	35.5	33.5	35.9	29.8
	36.5	29.7	25.1	28.9	26.9	28.7	26.0	35.0	32.2	30.0	35.7	29.2
Preformed Thermoplastic, White												
1	46.0	47.1	43.8	46.9	41.2	46.8	40.5	54.9	57.2	54.1	57.0	49.2
	38.2	40.8	35.7	41.5	35.6	40.3	36.7	46.5	45.7	47.4	53.7	47.2

TABLE 39. Colormeter Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Asphalt Pavement (Kentucky)
(continued)

SAMPLE NUMBER	COLORMETER MEASUREMENT											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Permanent Tape, White												
37	82.5	63.5	54.4	52.8	52.1	48.2	49.8	51.4	51.9	47.7	55.1	43.8
	81.8	59.6	38.7	45.6	43.4	46.5	49.3	53.5	48.6	43.6	47.9	47.1
55	84.0	69.1	63.2	65.7	67.1	65.5	66.5	72.6	69.2	64.2	70.6	60.5
	84.4	68.3	60.5	65.9	62.6	61.7	62.9	69.7	65.5	64.9	68.5	61.5
62	86.3	77.3	68.5	73.7	74.0	73.5	75.8	76.8	76.3	73.5	76.7	71.8
	86.6	75.1	67.2	70.9	70.5	69.7	73.0	75.8	73.1	73.4	75.4	71.2
Temporary Tape, White												
30	80.1	48.2	41.1	39.4	37.7	42.3	48.7	66.4	59.8	57.3	56.0	49.4
	77.6	47.6	36.3	39.2	37.6	36.9	40.5	51.7	49.8	44.9	54.7	43.2
Permanent Tape, Yellow												
36	46.6	33.3	27.4	26.1	23.7	25.5	25.6	32.9	29.1	26.5	28.1	23.4
	45.9	35.0	23.7	23.0	20.4	23.8	25.7	30.2	26.4	23.8	27.4	24.3
56	41.8	34.4	29.9	28.9	29.6	31.1	32.8	36.2	34.8	32.0	34.2	29.7
	42.0	34.6	26.8	29.8	26.2	28.7	28.6	34.4	32.6	30.3	31.7	28.1
Temporary Tape, Yellow												
27	48.3	31.1	23.9	24.2	23.2	25.7	35.5	38.0	35.9	33.0	34.4	29.2
	47.7	33.5	23.5	22.8	23.4	25.8	26.1	36.1	32.9	29.9	33.7	29.3

* Top number is wheel track measurement and bottom number is centerline measurements.

TABLE 40. Colormeter Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Kentucky)

SAMPLE NUMBER	COLORMETER MEASUREMENT											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, White (60 sec)												
4*	69.8	34.3	44.9	40.8	34.0	44.1	41.2	48.5	42.9	38.3	44.8	34.0
	70.2	52.7	44.7	38.6	38.7	45.2	33.8	40.7	40.5	33.4	33.8	33.1
6	67.6	32.4	41.2	36.3	34.1	40.3	38.8	46.3	40.6	36.6	37.8	31.8
	67.6	51.2	42.0	38.1	35.1	43.1	35.5	36.7	34.7	33.2	33.9	29.2
8	75.5	47.8	41.7	42.2	39.2	46.1	40.3	43.4	39.0	37.6	37.5	34.3
	77.8	56.9	48.0	41.9	40.4	50.3	38.3	41.9	37.2	37.8	35.6	32.9
10	73.4	46.4	41.1	34.3	32.6	29.2	41.4	38.5	35.3	32.6	35.9	29.9
	72.7	51.4	43.1	39.5	36.5	39.3	35.2	38.5	29.8	32.2	31.7	28.6
41	55.3	49.1	43.8	41.1	37.6	32.7	42.9	48.5	48.7	39.5	42.7	34.7
	59.9	54.1	44.9	39.0	33.9	32.6	35.2	38.4	34.9	35.0	33.6	30.8
43	59.5	43.4	40.8	42.2	37.8	39.4	46.1	47.0	47.5	37.8	47.7	35.7
	53.6	49.4	40.3	40.3	36.5	30.6	36.4	38.8	37.8	31.7	32.8	32.7
50	71.9	43.6	47.2	39.8	38.4	43.7	44.2	42.1	39.2	34.3	37.8	31.4
	70.3	57.7	50.4	47.1	41.1	49.6	42.2	42.8	38.7	39.1	37.7	31.6
Paint - Solvent, White (3 min or more)												
2	59.9	54.6	43.3	43.5	40.3	34.1	44.7	47.8	43.5	39.5	45.5	35.0
	64.0	57.0	49.1	46.1	40.6	36.8	41.6	43.5	41.5	37.0	37.5	33.1
12	52.7	30.5	37.2	31.8	30.3	26.2	38.4	49.9	46.2	43.0	50.6	39.2
	61.6	44.1	38.1	35.9	29.6	28.8	34.1	38.9	36.1	34.1	32.2	28.5
Paint - Solvent, Yellow (60 sec)												
5	36.9	28.6	24.3	24.0	22.4	21.5	25.0	31.4	30.0	27.0	29.9	23.9
	39.0	30.9	29.9	24.5	23.2	21.5	22.6	24.4	24.5	22.2	22.7	21.2
7	33.3	23.5	21.9	20.9	18.8	17.3	22.8	25.4	25.7	23.4	25.6	21.2
	35.0	27.0	21.1	21.9	20.9	19.1	20.8	21.4	21.8	18.4	19.4	17.4
9	35.6	33.6	24.7	22.3	21.3	19.8	24.9	31.6	31.1	27.1	30.5	26.1
	37.0	32.8	25.9	23.3	22.7	20.4	21.9	23.9	22.5	20.8	21.3	20.1
11	33.0	25.5	20.8	19.1	18.8	17.6	21.6	27.1	26.2	23.7	26.1	21.5
	35.3	26.9	22.6	21.8	19.4	19.3	20.8	23.0	20.9	19.3	20.1	17.6
40	35.3	24.5	24.8	23.9	21.9	21.1	26.1	29.5	27.7	25.6	29.5	23.1
	35.4	28.7	24.3	23.1	21.4	20.2	23.6	25.0	23.2	21.8	22.8	20.1
42	35.3	27.9	24.1	24.5	22.5	21.2	27.9	31.2	29.9	28.1	29.0	24.6
	36.9	28.5	25.1	23.1	21.6	20.3	27.3	25.6	25.6	22.1	23.5	20.3
52	44.6	24.8	28.8	25.6	24.4	28.9	28.2	30.1	28.9	25.8	27.9	22.7
	45.0	35.0	30.8	28.3	25.2	32.6	28.6	27.3	24.5	23.8	25.3	19.9
53	45.8	31.7	31.0	27.6	24.1	30.4	28.1	30.5	29.4	26.4	28.7	24.4
	46.0	36.2	31.2	28.7	26.8	32.2	26.3	26.2	24.7	22.6	22.6	20.8

TABLE 40. Colormeter Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Kentucky)(continued)

SAMPLE NUMBER	COLORMETER MEASUREMENT											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, Yellow (3 min or more)												
3	34.3	27.3	24.3	24.6	23.3	22.5	27.6	28.4	26.2	24.2	27.8	22.3
	37.1	31.0	26.0	25.2	23.4	23.2	25.3	25.9	24.0	22.9	24.8	21.5
13	35.2	24.4	23.6	22.1	19.9	18.0	25.4	30.2	30.5	26.7	30.4	24.9
	37.5	33.1	24.6	23.7	21.9	19.9	23.2	24.7	22.9	20.9	21.8	19.2
Paint - Water, White (60 sec)												
14	68.0	52.0	55.7	49.5	55.9	65.3	58.1	46.9	47.4	38.3	47.3	35.8
	72.2	60.9	52.9	52.5	50.2	61.3	59.9	59.1	51.2	44.8	51.9	43.9
16	66.4	45.7	52.1	46.8	47.9	57.4	53.5	54.1	47.3	41.3	47.2	33.3
	65.5	58.2	48.0	48.3	44.1	56.9	45.6	51.5	42.6	42.2	43.1	40.6
51	76.3	40.2	45.1	37.1	37.2	44.0	43.8	35.7	32.8	31.4	40.7	30.1
	76.9	53.5	48.7	46.2	43.0	53.5	45.9	48.5	41.5	40.2	39.3	35.8
Paint - Water, White (90 sec)												
19	67.2	47.8	53.1	55.5	50.6	61.3	53.4	52.1	47.9	40.6	45.7	36.2
	71.3	60.6	56.4	51.5	51.1	67.7	53.5	52.1	46.4	45.2	44.3	39.5
45	56.4	37.8	45.0	38.6	40.3	37.9	48.7	52.0	45.7	41.0	45.9	34.7
	63.1	52.4	43.8	40.6	34.1	35.9	45.1	43.5	43.9	39.5	39.0	39.2
Paint - Water, Yellow (60 sec)												
15	39.9	26.0	29.8	28.0	27.3	30.2	32.8	35.7	32.0	29.1	34.1	24.7
	39.6	36.4	29.9	29.9	30.9	31.8	32.7	34.7	30.2	29.2	29.7	26.5
17	38.4	28.3	32.4	30.1	29.7	38.5	32.3	35.0	31.5	29.8	31.8	27.7
	39.4	35.4	30.1	29.7	29.2	37.1	30.2	32.0	30.5	27.6	28.0	26.1
18	37.3	28.8	29.7	27.5	29.1	34.1	31.5	33.2	31.8	28.4	32.3	27.2
	38.0	34.6	29.7	29.0	27.4	34.2	30.0	31.9	29.1	26.1	26.7	24.8
20	38.7	28.0	30.8	29.0	28.4	37.5	33.7	34.3	31.8	28.8	32.5	26.5
	40.8	36.2	31.7	31.7	29.9	37.4	33.4	31.1	31.5	29.2	27.9	27.5
25	33.5	22.2	25.5	22.9	22.4	20.4	26.5	29.1	27.3	26.5	27.0	21.8
	36.0	30.6	24.3	23.5	21.8	21.2	23.5	25.6	25.5	21.7	22.1	19.8
26	40.5	25.5	32.9	32.9	34.0	25.6	32.4	33.8	31.9	28.0	30.9	27.7
	42.3	37.2	34.5	32.5	31.6	30.9	36.5	33.0	31.2	30.1	29.4	25.4
48	48.3	23.6	34.4	27.6	29.2	34.0	33.6	29.1	29.2	27.6	32.5	25.3
	49.3	37.9	34.1	33.6	30.9	38.7	36.1	35.3	30.9	28.3	29.2	27.0
49	50.4	26.5	34.1	30.5	31.3	36.5	34.8	33.2	30.5	28.4	31.7	27.6
	51.0	38.8	34.7	34.7	33.1	42.6	36.0	36.5	32.9	31.5	31.5	28.2
Paint - Water, Yellow (90 sec)												
44	32.6	24.4	23.2	19.7	20.3	18.8	22.8	28.0	26.4	25.3	25.2	20.5
	36.7	27.8	23.6	21.3	20.0	19.5	22.2	23.8	22.3	21.7	23.1	18.4

TABLE 40. Colormeter Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Kentucky)(continued)

SAMPLE NUMBER	COLORMETER MEASUREMENT											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Polyester, White (90 sec)												
23	67.3	47.9	47.2	23.9	24.5	31.5	24.4	---	---	---	---	---
	66.7	52.4	44.9	42.4	31.0	47.1	36.9	37.1	36.0	34.4	33.8	33.6
Paint - Polyester, White (30 min)												
21	63.3	44.6	45.5	37.4	40.2	44.9	43.9	47.2	40.1	41.2	42.3	31.6
	62.1	49.0	44.3	38.7	38.3	54.9	41.6	45.1	41.9	40.2	42.8	34.6
Paint - Polyester, Yellow (90 sec)												
24	39.6	26.7	24.4	26.1	22.5	25.5	26.2	---	---	---	---	---
	39.8	29.3	24.1	21.3	24.0	19.3	23.2	24.9	23.8	22.4	23.2	18.7
Paint - Polyester, Yellow (30 min)												
22	39.0	27.0	25.0	21.8	22.0	28.3	27.1	27.1	24.7	25.0	29.2	18.8
	39.5	29.3	25.8	24.6	23.6	29.0	26.4	26.3	23.9	25.1	22.9	20.1
Thermoplastic - White, Alkyd												
47	58.9	58.8	57.8	60.6	53.5	54.3	65.4	71.6	68.0	63.6	67.2	51.3
	59.9	56.3	48.0	51.9	51.6	44.4	55.5	61.6	62.6	58.8	58.3	51.2
60	64.6	57.5	53.2	57.5	52.5	48.6	57.0	60.0	60.9	56.9	60.1	47.3
	64.2	55.7	51.9	52.0	55.7	50.9	54.7	57.4	52.5	54.6	50.7	50.5
Thermoplastic - White, Hydrocarbon												
35	62.6	60.2	60.8	63.9	57.6	54.9	64.5	68.3	64.1	61.6	67.5	54.0
	61.0	58.7	51.1	61.5	49.4	45.6	54.1	62.4	59.1	59.7	61.0	53.9
58	66.8	56.9	52.0	57.6	51.4	47.9	55.9	62.7	60.8	59.6	65.2	48.5
	66.5	51.1	44.8	47.9	43.6	42.2	54.3	56.0	49.6	47.5	49.6	43.0
Methacrylate - White												
31**	---	---	---	---	---	---	---	---	---	---	---	---
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32	69.3	46.3	53.9	55.1	46.6	47.3	56.9	56.6	54.7	49.9	53.1	40.8
	67.8	56.8	52.2	38.0	48.8	31.6	48.4	49.3	47.2	52.0	49.9	43.7
Thermoplastic - Yellow, Alkyd												
46	36.3	34.8	34.2	36.8	33.1	35.1	39.6	44.3	37.1	39.8	41.7	32.8
	38.2	34.4	29.4	28.8	30.9	26.6	34.5	39.3	38.9	37.4	37.2	32.4
59	41.5	37.0	36.5	37.5	32.6	33.6	36.7	41.3	38.7	38.1	38.5	32.5
	39.7	38.0	30.2	34.2	33.1	28.7	32.2	37.1	34.8	34.3	33.7	32.9
Thermoplastic - Yellow, Hydrocarbon												
34	35.1	33.9	32.4	37.6	33.5	34.4	37.4	41.4	40.3	38.6	41.8	34.2
	36.0	33.3	25.1	29.6	27.9	27.8	33.4	36.4	37.4	35.2	38.4	33.2
57	35.5	30.5	32.9	34.8	30.6	30.3	34.0	39.0	37.5	35.4	39.7	30.5
	34.9	30.8	29.3	33.7	29.2	27.8	30.9	33.6	34.0	32.8	36.9	28.7
Preformed Thermoplastic, White												
1	49.9	42.2	45.0	53.9	46.6	44.1	51.8	58.3	57.3	55.9	62.7	48.7
	47.6	40.9	34.7	46.2	43.7	39.9	46.0	50.0	49.0	47.8	53.3	43.6

TABLE 40. Colormeter Data for Beaded Paint, Beaded Thermoplastic, and Nonremovable Tape Transverse Lines on Portland Cement Concrete Pavement (Kentucky)(continued)

SAMPLE NUMBER	COLORMETER MEASUREMENT											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Permanent Tape, White												
37	80.5	61.6	55.5	50.8	42.0	42.1	53.2	52.1	52.0	35.6	39.8	35.5
	75.9	62.8	56.8	54.3	48.6	46.2	54.9	53.8	51.7	43.4	46.8	42.9
55	81.0	75.0	69.9	74.4	59.8	67.4	74.0	70.7	72.0	66.2	68.6	51.0
	79.2	72.5	68.8	68.9	59.3	63.9	71.6	64.6	66.4	65.0	67.1	57.6
62	85.5	78.9	75.3	77.8	72.0	75.0	79.6	76.4	76.9	75.2	78.5	63.8
	84.5	78.6	73.7	76.4	69.8	69.2	77.9	75.6	73.8	70.3	70.4	67.8
Temporary Tape, White												
30	74.1	55.4	47.1	46.9	42.0	42.5	60.1	67.1	63.4	60.0	49.8	28.2
	71.8	52.5	39.6	44.7	37.7	37.4	53.2	55.4	52.6	47.6	55.6	44.7
Permanent Tape, Yellow												
36	45.2	36.3	30.2	27.4	23.8	29.7	29.6	30.8	30.1	26.0	22.1	18.1
	44.6	34.6	30.4	28.5	27.4	27.1	30.4	30.4	28.6	26.1	28.7	21.9
56	41.4	35.9	35.1	33.9	30.8	31.6	37.3	37.7	37.1	34.7	34.7	27.8
	40.0	36.0	31.8	33.4	30.1	29.9	35.9	35.4	34.9	32.2	33.2	28.7
Temporary Tape, Yellow												
27	46.1	33.3	26.7	27.2	25.9	27.8	35.5	39.4	37.8	36.1	28.1	24.3
	45.2	32.1	25.1	25.6	23.1	23.4	31.0	32.7	32.1	29.3	30.0	25.4

* Top number is wheel track measurement and bottom number is centerline measurements.

** White methacrylate #31 was not applied to the PCC pavement.

TABLE 41. Colormeter Data for Unbeaded Paint and Thermoplastic Transverse Lines on Asphalt Pavement (Kentucky)

SAMPLE NUMBER	COLORMETER MEASUREMENT											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, White (60 sec)												
4*	87.2	57.7	41.3	49.8	46.3	46.7	34.1	55.3	49.5	47.7	46.7	43.5
	85.3	54.9	44.3	44.8	47.1	46.3	38.7	49.1	49.9	45.1	51.0	46.0
6	85.3	55.9	39.9	52.7	45.6	43.6	42.9	53.0	51.4	41.0	55.8	44.5
	84.4	56.8	43.6	47.0	46.4	44.7	42.8	51.9	50.2	45.7	35.8	48.1
8	86.0	50.3	49.9	47.7	42.0	43.9	27.0	57.9	45.5	38.5	45.2	41.4
	87.7	52.8	47.2	45.3	42.7	42.7	28.3	47.9	49.0	43.3	47.9	44.0
10	84.8	53.4	35.0	47.4	42.7	39.6	27.7	47.6	41.3	35.5	23.9	37.4
	84.7	53.0	41.9	45.1	42.4	41.7	27.9	47.8	45.5	41.9	41.6	38.5
41	62.4	55.6	47.6	52.2	52.4	56.1	56.6	64.8	48.9	53.3	45.3	45.5
	66.4	58.0	43.9	50.1	42.3	51.8	44.0	63.5	57.2	52.0	52.4	41.4
43	59.6	52.1	46.2	55.4	55.8	56.8	46.1	58.8	41.7	47.6	36.5	34.1
	61.5	52.7	42.9	50.0	47.4	52.9	46.3	61.6	49.8	48.8	51.0	51.8
50	82.1	63.1	54.4	57.0	57.7	56.0	49.3	57.6	54.5	50.2	48.8	47.9
	82.3	61.3	52.8	58.8	54.6	55.9	34.7	59.0	53.6	49.0	53.5	46.0
Paint - Solvent, White (3 min or more)												
2	86.1	63.0	54.8	59.4	57.5	55.3	57.9	67.7	60.4	58.2	61.6	47.8
	84.4	63.7	52.1	51.2	51.6	56.2	51.8	60.9	57.9	55.6	55.7	53.2
12	83.3	54.2	35.6	47.1	42.2	46.3	47.0	59.2	51.1	51.4	56.0	48.0
	82.7	56.0	46.8	47.3	42.9	42.4	39.9	47.4	40.8	40.8	43.3	41.1
Paint - Solvent, Yellow (60 sec)												
5	36.8	32.6	28.0	29.2	29.5	29.4	27.4	39.8	35.6	34.7	34.6	33.4
	36.2	33.1	23.2	28.4	26.6	27.0	23.0	32.7	33.2	28.9	29.9	30.4
7	34.9	30.5	26.7	27.8	26.0	26.4	24.2	34.8	29.1	29.0	26.2	25.3
	34.4	32.0	24.8	26.7	26.2	27.7	23.3	30.4	29.5	27.4	28.3	26.2
9	34.4	30.0	26.3	27.9	26.1	26.3	24.5	35.5	32.4	29.8	28.1	21.9
	35.9	31.4	23.9	26.7	25.9	25.5	22.0	31.5	33.3	27.7	28.9	22.8
11	36.5	30.9	26.5	27.8	27.3	27.7	23.2	34.4	32.7	30.3	29.9	26.9
	35.0	30.5	25.2	27.8	26.8	28.3	22.5	33.8	29.4	30.0	29.0	27.3
40	40.6	37.8	32.6	33.5	34.2	35.0	35.4	40.9	39.4	35.9	31.7	34.8
	40.2	36.5	28.8	18.6	20.2	41.0	31.1	37.6	35.3	34.0	34.9	34.0
42	39.2	35.2	29.9	31.2	33.5	36.2	32.4	35.9	34.4	30.7	33.0	31.2
	38.7	35.1	27.6	24.9	30.7	36.0	32.6	36.7	33.3	32.2	33.7	32.6
52	52.0	40.0	35.0	35.1	33.5	34.3	32.9	35.1	35.1	31.1	32.1	29.1
	52.8	35.7	32.9	34.3	31.7	33.3	32.9	36.0	34.3	31.8	32.6	26.7
53	54.8	40.8	35.3	35.0	31.8	31.2	26.7	31.6	31.7	30.4	30.0	29.3
	54.1	38.2	33.8	33.8	32.0	32.1	29.4	32.4	29.4	28.3	30.4	27.7

TABLE 41. Colormeter Data for Unbeaded Paint and Thermoplastic Transverse Lines on Asphalt Pavement (Kentucky)(continued)

SAMPLE NUMBER	COLORMETER MEASUREMENT											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, Yellow (3 min or more)												
3	48.8	36.7	30.9	32.5	32.9	32.0	34.8	37.9	37.6	35.0	35.7	32.8
	51.5	36.7	29.1	31.5	29.7	31.3	31.5	36.3	32.9	31.8	32.9	31.3
13	52.0	36.2	32.3	31.5	30.7	30.6	30.2	36.0	32.5	29.3	35.1	27.9
	52.5	35.9	30.5	29.3	27.7	29.6	29.0	31.2	28.8	28.0	29.8	25.5
Paint - Water, White (60 sec)												
14	75.4	70.9	59.1	68.0	69.6	70.4	74.5	55.1	73.6	69.4	44.8	63.8
	73.3	65.8	45.6	64.3	66.3	71.7	73.8	73.1	66.7	65.8	67.5	66.8
16	71.3	64.9	55.9	61.2	64.1	69.0	68.1	76.9	69.1	64.3	66.7	52.7
	68.9	62.9	51.7	57.2	58.8	63.3	52.1	68.5	63.1	56.8	57.9	64.1
51	78.5	61.0	53.9	55.5	57.5	53.3	52.3	52.9	53.4	46.7	48.7	42.7
	73.5	56.8	49.0	53.6	55.5	54.4	57.0	57.4	53.1	49.0	47.8	50.8
Paint - Water, White (90 sec)												
19	72.1	64.7	54.5	59.2	53.5	60.3	66.6	72.5	66.9	59.2	60.9	53.7
	70.2	62.4	52.1	57.5	62.0	67.2	63.3	69.3	66.3	60.5	65.4	57.8
45	71.5	66.5	55.4	60.5	61.4	58.9	69.4	74.6	62.8	60.1	67.2	62.4
	67.6	58.5	51.1	57.2	59.8	66.9	65.9	73.6	69.7	62.3	66.4	65.5
Paint - Water, Yellow (60 sec)												
15	46.6	33.1	36.6	41.3	42.8	46.0	44.4	38.5	45.7	42.0	44.7	41.6
	46.2	40.7	35.9	39.0	41.7	44.3	43.8	45.8	43.2	38.9	39.5	41.8
17	44.1	41.8	36.4	36.7	38.9	40.2	42.9	46.0	45.4	41.8	41.0	39.2
	45.5	39.6	35.2	36.8	39.9	40.8	41.2	45.2	41.0	39.0	40.8	39.6
18	46.1	43.1	35.6	28.7	40.5	44.1	43.2	49.5	41.0	41.2	44.2	41.7
	45.3	41.9	32.4	38.1	42.0	48.0	43.9	47.8	44.4	32.1	45.3	41.4
20	24.4	39.4	31.9	34.5	36.4	39.2	37.4	41.7	38.5	34.0	35.2	34.7
	43.1	40.7	33.4	36.7	35.9	37.7	38.4	39.5	36.2	32.5	35.6	34.3
25	43.8	40.6	30.0	38.8	38.7	39.5	41.5	34.7	37.8	31.6	33.3	29.3
	42.6	38.1	34.6	35.7	37.5	34.2	41.9	34.9	38.2	36.6	41.6	34.5
26	45.3	40.7	34.3	38.6	38.9	39.9	39.5	41.8	36.4	33.4	26.8	32.2
	45.3	40.5	35.2	36.9	38.0	39.7	39.1	35.0	39.5	36.7	37.9	31.6
48	51.3	42.1	35.4	37.7	36.6	36.3	35.4	39.9	40.6	38.3	39.0	35.9
	51.8	38.6	25.8	37.1	37.6	36.8	36.0	40.6	35.9	36.6	35.7	32.9
49	56.0	40.5	33.1	33.6	29.1	32.9	33.3	43.8	38.8	35.9	34.4	32.6
	54.1	40.8	34.0	37.0	36.3	39.5	38.2	41.2	37.4	35.9	36.1	35.1
Paint - Water, Yellow (90 sec)												
44	42.5	40.3	28.6	33.8	34.2	34.0	34.1	39.2	36.8	26.0	36.5	32.1
	40.6	36.4	31.5	32.4	32.3	34.5	34.2	43.9	36.0	35.5	36.2	35.7

TABLE 41. Colormeter Data for Unbeaded Paint and Thermoplastic Transverse Lines on Asphalt Pavement (Kentucky)(continued)

SAMPLE NUMBER	COLORMETER MEASUREMENT											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Polyester, White (90 sec)												
23	78.7	79.0	68.7	74.5	73.8	76.1	80.4	83.3	78.2	63.5	66.8	71.1
	79.6	74.0	56.5	68.6	77.2	77.6	79.1	79.7	73.7	68.7	75.5	70.5
Paint - Polyester, White (30 min)												
21	79.0	76.0	67.4	72.6	69.6	71.8	74.7	71.6	74.2	66.8	72.3	65.0
	80.9	75.7	58.1	63.6	73.5	71.4	67.7	77.4	68.8	67.0	74.4	66.7
Paint - Polyester, Yellow (90 sec)												
24	52.5	46.2	36.5	41.8	42.5	44.2	47.0	44.3	46.4	44.0	46.5	43.4
	57.2	44.9	37.8	40.6	42.4	43.8	45.6	29.2	42.4	42.7	46.0	40.6
Paint - Polyester, Yellow (30 min)												
22	49.5	35.3	37.9	39.0	39.2	40.3	42.3	45.9	43.7	38.4	40.0	36.3
	50.2	42.3	33.8	37.4	39.3	39.3	41.2	44.0	42.1	39.3	42.3	37.1
Thermoplastic - White, Alkyd												
47	80.7	76.1	65.7	69.7	70.3	75.4	69.6	73.4	67.3	63.0	55.6	65.0
	80.2	73.4	53.6	65.4	70.6	72.0	73.3	73.3	69.0	67.6	65.0	58.8
60	79.8	73.3	64.0	70.7	71.2	67.4	69.8	67.4	61.2	57.7	52.4	43.7
	80.2	69.5	57.3	67.6	64.1	66.2	70.3	74.9	66.2	62.5	62.7	59.8
Thermoplastic - White, Hydrocarbon												
35	76.8	71.8	69.4	68.8	65.2	65.2	59.8	72.0	67.0	58.2	62.1	55.5
	76.0	69.7	62.3	68.9	62.2	66.7	58.7	69.9	68.3	67.3	66.3	60.1
58	81.6	73.1	67.8	66.6	68.7	68.9	61.8	69.4	61.9	59.8	58.8	49.1
	79.6	71.2	60.7	68.5	68.0	69.9	68.0	74.2	67.6	70.1	69.7	57.6
Methacrylate - White												
31	79.0	76.3	67.2	71.7	74.6	70.9	70.3	73.8	65.7	64.5	62.1	63.1
	81.5	71.8	62.8	68.5	72.0	73.5	74.9	68.7	69.2	67.1	71.6	63.0
32	78.9	69.5	63.8	61.3	60.9	61.5	61.8	66.5	58.9	57.1	58.9	53.2
	77.2	69.2	60.0	64.9	64.2	62.4	67.0	64.9	62.4	58.6	59.7	57.7
Thermoplastic - Yellow, Alkyd												
46	49.6	49.9	42.0	41.4	43.6	44.3	42.6	41.0	40.3	40.4	37.8	37.4
	49.6	49.2	33.9	41.5	41.2	42.7	38.3	47.7	43.1	41.6	42.6	37.2
59	51.9	47.2	44.3	41.0	43.8	43.2	34.4	43.2	34.5	32.2	34.4	30.9
	52.5	49.3	41.7	44.6	42.8	45.3	40.2	46.9	34.0	32.8	45.5	41.7
Thermoplastic - Yellow, Hydrocarbon												
34	45.6	45.6	39.9	40.6	40.1	39.4	30.3	42.3	39.2	37.2	38.6	35.3
	45.5	44.6	35.6	40.6	37.1	37.6	32.0	37.4	35.5	33.3	36.0	34.2
57	48.5	35.4	39.1	40.9	36.9	38.4	35.6	40.1	38.4	34.7	36.0	31.3
	46.4	47.9	44.6	39.1	37.6	38.9	34.9	37.9	40.1	36.1	38.6	35.0
Preformed Thermoplastic, White												
1	61.6	55.4	55.4	54.7	45.8	37.1	37.9	60.0	56.5	54.8	58.0	47.4
	54.9	58.9	53.9	62.4	50.6	56.9	37.7	58.0	54.8	49.4	52.0	46.5

* Top number is wheel track measurement and bottom number is centerline measurements.

TABLE 42. Colormeter Data for Unbeaded Paint and Thermoplastic Transverse Lines on Portland Cement Concrete Pavement (Kentucky)

SAMPLE NUMBER	COLORMETER MEASUREMENT											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, White (60 sec)												
4*	83.5	62.5	55.2	56.2	53.4	50.0	51.6	56.9	58.7	50.6	51.4	41.1
	82.0	66.9	55.7	56.2	52.2	51.1	50.4	54.4	53.5	49.4	49.6	47.5
6	82.8	71.4	58.5	58.6	54.6	50.2	52.5	59.7	50.8	50.5	52.1	48.2
	84.8	67.6	62.4	60.8	58.0	54.2	53.6	56.1	50.8	50.5	48.1	44.8
8	83.8	73.1	68.4	61.1	57.8	54.2	48.7	62.1	47.5	44.8	34.3	47.5
	82.5	71.2	58.7	56.3	56.0	52.3	52.6	56.2	51.2	50.3	50.9	45.4
10	84.9	71.6	56.2	57.2	48.4	47.7	48.6	53.3	41.2	43.2	24.4	37.6
	80.8	70.3	61.8	60.7	50.4	55.2	44.1	49.7	48.1	43.6	32.7	42.9
41	77.2	77.7	62.9	67.4	58.7	60.7	65.8	60.9	60.1	52.7	51.7	50.7
	68.7	67.6	62.3	57.0	55.7	58.8	58.7	58.5	56.3	49.8	55.5	51.4
43	65.6	71.7	54.8	67.6	60.3	59.4	64.8	64.6	58.8	52.9	54.1	47.3
	69.8	67.1	51.1	54.7	47.5	16.1	54.8	54.7	52.6	44.6	37.7	47.1
50	81.8	74.5	66.1	72.2	71.8	65.7	69.4	68.2	47.1	57.7	61.4	54.5
	82.1	77.7	67.3	71.9	65.1	64.2	67.4	62.2	58.2	58.5	58.1	51.4
Paint - Solvent, White (3 min or more)												
2	79.0	81.7	64.0	72.6	68.5	64.3	70.3	66.1	57.3	54.7	54.8	49.7
	79.5	81.5	70.2	69.3	64.6	61.6	66.6	63.3	59.8	55.5	54.4	47.9
12	70.4	67.9	53.8	55.5	51.0	48.7	53.1	62.9	59.1	49.9	55.7	50.7
	76.4	71.5	60.9	51.4	48.5	41.9	49.7	49.9	47.6	38.2	38.6	38.0
Paint - Solvent, Yellow (60 sec)												
5	43.8	38.8	30.6	32.2	31.5	31.9	31.2	36.7	33.3	31.1	32.7	30.8
	45.3	42.0	33.2	33.1	39.9	31.6	30.4	31.8	31.8	27.7	28.6	28.1
7	40.8	40.0	30.2	30.5	28.6	29.3	28.0	32.5	32.1	27.2	28.8	27.4
	40.5	37.5	31.5	27.1	28.9	27.6	26.6	29.6	28.0	23.5	27.3	27.0
9	43.1	39.6	29.3	31.5	26.0	29.7	29.1	34.4	32.1	27.3	29.9	26.4
	43.5	39.7	32.1	32.3	28.6	28.5	28.2	29.9	30.5	26.8	27.1	27.7
11	42.1	37.7	28.8	29.5	26.9	27.8	28.0	34.2	28.9	26.3	27.0	24.6
	40.6	38.5	30.7	30.7	24.4	28.2	29.9	28.6	26.7	23.8	24.8	23.9
40	47.4	46.8	36.2	39.9	39.7	38.2	40.5	41.2	40.0	36.3	35.5	31.9
	43.2	45.6	39.0	37.4	35.0	37.3	37.8	39.0	37.1	33.9	34.1	33.6
42	47.4	45.3	35.0	37.6	38.4	35.9	37.6	40.1	41.6	32.3	34.4	31.1
	44.4	47.1	37.3	37.5	36.0	32.6	39.4	38.0	37.0	33.4	36.0	31.8
52	50.3	43.5	36.3	37.3	38.0	37.4	38.0	37.4	36.2	31.4	32.5	29.7
	44.5	45.0	37.2	37.4	39.4	37.4	41.2	38.8	35.6	35.0	35.1	32.0
53	50.3	46.1	38.1	39.7	38.9	37.2	37.5	38.2	34.8	32.6	32.4	30.2
	50.1	46.4	39.3	38.6	36.8	36.9	37.1	36.3	34.6	33.0	32.2	29.6

TABLE 42. Colormeter Data for Unbeaded Paint and Thermoplastic Transverse Lines on Portland Cement Concrete Pavement (Kentucky)
(continued)

SAMPLE NUMBER	COLORMETER MEASUREMENT											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Solvent, Yellow (3 min or more)												
3	40.9	43.1	32.3	34.1	34.6	34.3	35.6	36.9	36.3	32.9	33.2	29.8
	44.6	43.9	33.6	33.5	34.7	33.0	35.1	35.1	34.2	31.0	31.4	30.1
13	44.8	45.6	32.5	34.4	29.1	31.4	33.3	36.9	36.2	32.5	35.6	31.5
	46.2	46.5	38.3	36.4	30.9	29.9	30.6	30.2	27.9	28.9	28.0	26.2
Paint - Water, White (60 sec)												
14	76.2	82.1	63.0	75.3	74.0	37.7	69.4	42.2	65.8	32.2	30.9	31.2
	76.1	79.7	67.5	71.9	72.0	71.9	83.9	74.3	36.9	67.6	62.7	69.2
16	76.7	80.5	66.2	76.7	74.7	68.7	39.1	46.3	44.9	28.5	29.3	40.2
	76.7	77.0	69.0	72.3	69.7	65.7	71.8	68.1	66.7	62.0	62.6	61.8
51	84.8	75.7	63.3	32.0	44.3	22.2	63.2	52.5	42.6	27.7	55.3	39.1
	82.2	66.2	63.6	69.4	59.5	61.2	66.2	59.8	40.5	40.2	38.4	47.5
Paint - Water, White (90 sec)												
19	74.6	69.3	63.8	73.0	72.0	27.6	29.4	30.3	34.4	26.1	32.8	27.4
	79.9	77.5	61.3	70.9	61.8	66.7	76.0	63.7	61.4	56.0	54.6	54.0
45	72.1	76.9	61.2	75.1	58.0	46.5	58.6	41.5	48.9	36.2	40.4	49.5
	65.5	77.9	61.2	67.1	59.5	78.6	71.5	61.0	57.1	45.1	59.0	57.2
Paint - Water, Yellow (60 sec)												
15	45.2	52.4	39.6	44.8	38.7	29.5	43.8	45.4	25.9	26.9	30.3	30.6
	48.9	50.1	42.0	45.3	40.9	43.6	46.6	45.3	36.2	38.6	37.7	37.9
17	46.4	51.2	38.2	42.5	43.4	41.4	36.7	28.2	23.6	25.3	28.9	28.4
	47.8	48.3	38.7	41.4	42.8	39.4	41.7	43.6	37.3	37.7	27.5	37.1
18	46.1	51.8	40.6	45.5	45.7	27.3	27.0	25.0	27.3	25.1	30.9	26.1
	46.4	50.7	40.1	38.8	41.4	41.4	44.2	22.5	26.9	29.0	27.7	28.8
20	43.7	48.2	36.9	41.2	42.7	39.3	43.2	26.2	28.8	34.8	30.8	34.4
	34.4	47.3	37.6	38.8	41.7	39.9	43.2	40.9	37.9	36.4	32.6	32.7
25	46.1	49.6	37.0	42.2	44.1	40.0	37.6	32.1	33.2	31.6	28.6	30.9
	44.4	50.7	41.6	37.8	41.1	43.1	41.8	28.6	35.1	23.8	32.4	22.2
26	46.2	47.0	39.9	41.5	43.9	41.2	39.4	34.0	32.4	30.5	34.4	32.3
	47.6	51.9	41.7	44.7	41.8	42.6	37.9	36.6	30.5	31.4	34.9	30.2
48	52.5	50.2	38.5	44.8	35.2	31.7	30.5	31.1	33.7	30.0	36.1	32.3
	52.6	47.8	42.9	42.0	43.5	43.8	47.1	33.6	32.9	30.0	38.0	25.8
49	52.5	49.9	39.2	26.8	27.2	33.2	30.0	25.5	26.8	25.2	31.2	27.3
	53.7	44.5	41.0	42.8	41.6	40.6	35.5	41.7	32.7	38.8	29.7	37.7
Paint - Water, Yellow (90 sec)												
44	47.3	44.5	34.5	37.1	37.0	37.6	37.6	36.5	33.4	29.3	32.6	32.8
	46.0	42.3	35.8	32.2	36.8	34.7	39.8	35.8	28.8	29.7	32.1	35.0

TABLE 42. Colormeter Data for Unbeaded Paint and Thermoplastic Transverse Lines on Portland Cement Concrete Pavement (Kentucky)
(continued)

SAMPLE NUMBER	COLORMETER MEASUREMENT											
	JUNE 1989	JULY 1989	AUG 1989	SEPT 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MARCH 1990	APRIL 1990	MAY 1990
Paint - Polyester, White (90 sec)												
23	74.6	35.2	65.7	26.8	28.4	31.9	26.3	---	---	---	---	---
	83.6	84.7	71.1	78.8	50.0	72.6	78.0	76.7	66.6	24.2	30.0	63.9
Paint - Polyester, White (30 min)												
21	80.7	81.3	63.5	74.7	40.8	69.9	70.1	78.3	74.1	57.9	71.4	63.5
	78.6	86.6	76.0	85.6	67.6	78.0	80.3	74.1	67.1	69.7	73.3	66.2
Paint - Polyester, Yellow (90 sec)												
24	49.3	48.3	39.2	27.8	23.1	24.9	22.8	---	---	---	---	---
	50.6	46.1	39.4	40.3	22.8	41.6	31.5	44.0	41.9	40.0	39.0	38.2
Paint - Polyester, Yellow (30 min)												
22	62.3	44.7	44.2	38.0	40.1	39.0	42.4	43.4	39.6	34.5	34.7	32.0
	49.1	45.3	37.6	41.8	39.4	39.8	40.6	41.1	37.9	35.4	37.3	34.5
Thermoplastic - White, Alkyd												
47	85.6	80.5	59.0	73.4	72.2	71.3	73.7	74.2	68.9	63.5	64.4	55.0
	84.7	79.2	67.8	71.3	70.3	70.7	75.7	76.4	72.1	68.8	68.8	66.3
60	78.8	78.5	63.3	68.3	77.7	47.5	71.0	67.5	62.0	55.8	58.7	51.9
	82.3	77.3	68.6	74.2	75.5	70.9	70.5	71.1	65.5	64.5	66.6	64.1
Thermoplastic - White, Hydrocarbon												
35	82.5	79.1	69.2	69.8	67.4	64.7	65.8	67.7	64.1	56.9	62.0	54.6
	81.6	76.7	69.5	72.8	68.4	67.6	67.5	70.5	68.6	65.7	62.6	62.4
58	81.2	78.3	64.6	71.1	71.2	58.3	68.9	68.1	59.0	57.6	58.1	48.8
	78.2	77.7	69.3	70.1	72.6	69.4	71.0	71.0	67.6	67.3	62.4	58.8
Methacrylate - White												
31**	---	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---	---
32	78.0	66.2	55.8	60.5	59.6	54.5	60.6	58.0	55.4	50.7	59.8	46.5
	78.1	63.8	58.8	58.6	59.1	43.9	61.9	56.0	54.1	52.0	52.6	48.4
Thermoplastic - Yellow, Alkyd												
46	48.4	45.9	39.0	43.1	43.1	41.3	43.5	43.2	41.7	38.6	40.8	31.8
	49.2	47.1	38.2	42.2	40.8	41.5	42.4	46.2	42.3	41.6	42.4	40.0
59	49.6	51.1	43.4	43.9	45.3	43.2	46.3	45.2	41.2	37.7	37.3	33.8
	49.3	49.7	44.4	44.7	45.7	44.4	46.3	47.0	42.7	41.2	42.8	41.8
Thermoplastic - Yellow, Hydrocarbon												
34	43.9	44.2	38.9	41.3	38.6	36.4	38.0	40.6	28.6	37.1	41.3	33.7
	44.1	42.0	39.6	37.8	38.7	37.6	37.5	39.4	33.0	36.7	36.2	34.3
57	47.3	43.9	38.0	41.2	39.1	34.7	38.7	38.1	37.8	32.5	37.5	32.1
	46.0	44.4	39.4	35.7	37.9	37.0	40.6	42.2	38.1	38.5	38.3	36.3
Preformed Thermoplastic, White												
1	68.7	62.5	56.9	51.6	50.2	43.2	47.8	56.3	51.4	51.6	54.0	48.5
	62.5	62.3	56.4	58.7	51.7	51.3	52.3	52.4	54.7	49.2	49.2	49.7

* Top number is wheel track measurement and bottom number is centerline measurements.

** White methacrylate #31 was not applied to the PCC pavement.

TABLE 43. Colormeter Data for Removable Tape Lines on Asphalt Pavement (Kentucky)

		COLORMETER READINGS						
SAMPLE NUMBER		JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	DEC 1989
Removable Tape, White								
29	T-LW*	82.6	61.1	55.8	58.3	63.1	64.5	69.9
	T-C**	80.8	63.9	55.3	58.2	56.2	62.1	67.4
	L***	82.2	63.5	56.4	60.1	60.7	63.0	60.8
38	T-LW	73.6	54.6	49.9	49.1	43.4	46.7	48.9
	T-C	72.5	53.8	44.5	45.8	38.9	44.5	37.5
	L	76.1	62.1	55.9	49.2	47.3	45.8	44.0
54	T-LW	81.7	67.0	61.0	59.7	54.6	61.7	64.3
	T-C	81.8	67.0	59.7	63.1	51.7	57.1	55.9
	L	83.9	64.4	62.6	60.3	55.7	60.1	59.9
Removable Tape, Yellow								
28	T-LW	48.4	37.9	27.5	31.1	31.8	32.2	37.7
	T-C	47.9	38.2	29.7	31.1	30.8	32.5	38.6
	L	49.0	39.4	31.8	31.3	30.6	32.5	34.4
39	T-LW	44.3	37.0	29.2	27.6	27.3	26.8	31.6
	T-C	45.3	35.0	25.0	21.2	21.9	28.5	24.2
	L	47.3	42.3	32.1	30.3	24.0	28.2	27.4
61	T-LW	43.7	42.2	34.5	37.6	32.8	31.9	39.1
	T-C	42.8	41.3	33.0	33.4	31.9	33.5	38.3
	L	43.5	39.2	32.5	31.3	26.2	30.8	31.9

* Transverse stripe - left wheelpath.

** Transverse stripe - centerline.

*** Longitudinal stripe - centerline.

TABLE 44. Colormeter Data for Removable Tape Lines on Portland Cement Concrete Pavement (Ke

		COLORMETER READINGS						
SAMPLE NUMBER		JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	DEC 1989
Removable Tape, White								
29	T-LW*	80.9	22.1	67.4	55.0	65.2	37.6	51.9
	T-C**	77.7	25.8	64.4	65.1	57.7	61.7	77.2
	L***	80.2	24.7	65.6	68.1	65.6	69.6	76.4
38	T-LW	70.6	60.0	62.5	57.1	54.6	50.3	57.7
	T-C	72.1	60.0	51.3	49.0	39.9	40.4	48.5
	L	75.3	60.0	63.7	61.7	58.1	57.8	63.5
54	T-LW	75.4	55.5	66.0	65.4	63.6	60.9	68.3
	T-C	72.9	55.5	60.5	57.7	48.3	49.7	52.5
	L	76.5	55.5	61.8	60.1	53.4	55.0	70.8
Removable Tape, Yellow								
28	T-LW	44.9	26.7	34.1	29.9	30.9	23.0	40.0
	T-C	44.3	33.3	32.4	32.5	30.2	30.9	40.4
	L	45.1	29.1	32.7	34.2	33.7	34.2	38.3
39	T-LW	43.4	33.7	32.4	31.0	29.3	28.6	37.1
	T-C	45.0	33.7	25.1	25.2	23.8	24.2	30.5
	L	45.8	33.7	34.6	35.0	30.7	32.2	36.3
61	T-LW	40.7	36.4	36.1	36.7	36.5	37.1	41.3
	T-C	39.9	36.4	36.0	34.6	34.5	33.8	37.7
	L	40.6	36.4	33.7	33.6	32.4	37.9	40.6

* Transverse stripe - left wheelpath.

** Transverse stripe - centerline.

*** Longitudinal stripe - centerline.

TABLE 45. Removability Ratings for Removable Tape Lines on Asphalt Pavement (Kentucky)

		SUBJECTIVE RATINGS						
SAMPLE		JULY	AUG	SEP	OCT	NOV	DEC	
NUMBER		1989	1989	1989	1989	1989	1989	AVG.
Removable Tape, White								
29	T	10.0	9.0	9.3	9.0	8.2	2.3	8.0
	L	10.0	9.0	9.3	9.0	8.5	3.7	8.3
38	T	8.0	3.0	7.0	5.0	2.0	0.7	4.3
	L	10.0	9.0	8.0	8.0	2.3	0.7	6.3
54	T	6.3	7.8	5.0	6.0	0.0	2.0	4.5
	L	9.0	7.8	5.7	5.7	0.0	0.7	4.8
Removable Tape, Yellow								
28	T	10.0	9.0	9.0	7.0	6.0	3.0	7.3
	L	10.0	9.0	9.0	9.0	7.7	8.0	8.8
39	T	9.0	5.3	6.3	8.0	3.0	0.7	5.4
	L	10.0	8.8	9.0	8.0	8.0	0.7	7.4
61	T	6.7	6.5	5.3	5.7	0.0	0.7	4.1
	L	6.7	7.2	6.0	7.3	1.0	1.3	4.9

TABLE 46. Removability Ratings for Removable Tape Lines on Asphalt Pavement (Alabama)

SAMPLE NUMBER		SUBJECTIVE RATINGS						AVG.
		JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	
Removable Tape, White								
29	T	10.0	10.0	10.0	10.0	8.3	9.3	9.6
	L	10.0	10.0	10.0	10.0	9.3	10.0	9.9
38	T	10.0	8.7	6.7	2.0	2.3	0.0	5.0
	L	10.0	10.0	10.0	9.0	7.7	10.0	9.5
54	T	10.0	10.0	9.3	10.0	8.0	8.3	9.3
	L	10.0	10.0	9.0	8.7	8.0	8.7	9.1
Removable Tape, Yellow								
28	T	10.0	10.0	10.0	9.7	8.3	8.7	9.5
	L	10.0	10.0	10.0	10.0	10.0	10.0	10.0
39	T	10.0	9.7	6.7	2.0	5.7	6.7	6.8
	L	10.0	10.0	10.0	10.0	9.3	10.0	9.9
61	T	10.0	10.0	9.0	9.3	7.3	8.7	9.1
	L	10.0	10.0	10.0	10.0	9.7	10.0	10.0

**TABLE 47. Removability Ratings for Removable Tape Lines on Portland Cement Concrete
Pavement (Kentucky)**

Pavement (Kentucky)								
		SUBJECTIVE RATINGS						
SAMPLE		JULY	AUG	SEP	OCT	NOV	DEC	
NUMBER		1989	1989	1989	1989	1989	1989	AVG.
Removable Tape, White								
29	T	9.7	9.0	10.0	8.7	6.0	3.3	7.8
	L	9.7	9.7	10.0	9.5	9.0	0.7	8.1
38	T	9.7	8.3	8.0	7.7	4.0	2.0	6.6
	L	9.7	9.3	9.5	9.0	8.7	4.3	8.4
54	T	7.7	4.0	2.0	4.0	0.3	0.7	3.1
	L	7.7	4.7	4.0	4.0	0.0	1.3	3.6
Removable Tape, Yellow								
28	T	9.7	8.0	8.0	8.7	7.0	1.7	7.2
	L	9.7	8.3	8.0	9.0	8.0	6.0	8.2
39	T	9.7	9.3	8.0	8.0	7.0	2.0	7.3
	L	9.7	9.7	10.0	9.0	9.7	3.7	8.6
61	T	7.3	6.0	1.0	4.0	1.0	1.3	3.4
	L	7.3	5.7	1.0	6.2	0.7	0.7	3.6

**TABLE 48. Removability Ratings for Removable Tape Lines on Portland Cement Concrete
Pavement (Alabama)**

SAMPLE NUMBER		SUBJECTIVE RATINGS						AVG.
		JUNE 1989	JULY 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	
Removable Tape, White								
29	T	10.0	10.0	10.0	10.0	10.0	9.0	9.8
	L	10.0	10.0	10.0	10.0	10.0	10.0	10.0
38	T	9.0	10.0	6.3	4.0	2.0	3.7	5.8
	L	10.0	9.0	9.7	10.0	10.0	10.0	9.8
54	T	8.0	8.0	7.0	7.0	3.3	5.7	6.5
	L	10.0	9.0	10.0	9.7	8.7	9.0	9.4
Removable Tape, Yellow								
28	T	10.0	10.0	10.0	10.0	10.0	9.0	9.8
	L	10.0	10.0	10.0	10.0	10.0	10.0	10.0
39	T	9.0	9.0	7.3	6.3	2.7	3.0	6.2
	L	10.0	9.0	10.0	10.0	10.0	9.0	9.7
61	T	9.3	10.0	8.7	8.7	10.0	6.7	8.9
	L	10.0	10.0	10.0	10.0	10.0	10.0	10.0

TABLE 49. Discernability Ratings for Removable Tape Lines on Asphalt Pavement (Kentucky)

SAMPLE		Months After Removal										
NUMBER		0	1	2	3	4	5	6	7	8	9	10
Removable Tape, White												
29	T	1.6	7.4	8.4	8.8	9.1	9.3	9.4	9.7	10.0	10.0	9.7
	L	1.8	6.7	8.3	8.7	9.0	9.3	9.5	9.8	10.0	10.0	10.0
38	T	3.3	7.1	8.5	8.9	8.9	9.1	9.2	9.3	9.6	9.8	9.7
	L	1.5	7.2	8.3	8.4	8.6	8.8	9.0	9.3	9.4	9.7	10.0
54	T	1.0	6.6	7.2	8.0	8.5	9.1	9.4	9.8	10.0	10.0	10.0
	L	1.1	6.7	7.0	8.1	8.7	8.9	9.1	9.6	10.0	10.0	10.0
Removable Tape, Yellow												
28	T	1.3	6.3	8.7	9.1	9.1	9.6	9.8	9.9	10.0	10.0	10.0
	L	1.3	6.5	7.7	8.3	8.9	9.4	9.6	9.9	10.0	10.0	10.0
39	T	2.6	7.5	8.7	8.9	8.8	8.9	9.1	9.2	9.3	9.7	10.0
	L	2.7	7.9	8.2	8.4	8.4	8.6	8.8	9.2	9.3	9.7	10.0
61	T	1.1	6.5	7.4	8.3	9.0	9.4	9.6	9.8	10.0	10.0	10.0
	L	1.3	6.4	7.0	7.9	8.6	9.1	9.4	9.8	10.0	10.0	10.0

TABLE 50. Discernability Ratings for Removable Tape Lines on Asphalt Pavement (Alabama)

SAMPLE NUMBER		Months After Removal										
		0	1	2	3	4	5	6	7	8	9	10
Removable Tape, White												
29	T	8.4	8.7	9.0	9.1	9.1	9.1	9.1	9.3	9.9	10.0	10.0
	L	8.6	9.3	9.5	9.6	9.5	9.6	9.9	9.9	9.9	10.0	10.0
38	T	8.1	8.2	8.3	8.8	8.9	8.7	9.1	9.2	9.5	9.7	9.3
	L	8.6	9.2	9.3	9.4	9.3	9.4	9.7	9.9	10.0	10.0	10.0
54	T	8.4	8.2	8.4	8.6	8.9	8.9	8.9	9.1	9.3	9.5	9.7
	L	8.4	8.5	8.6	9.0	9.0	9.0	9.2	9.6	10.0	9.9	10.0
Removable Tape, Yellow												
28	T	8.4	8.8	8.8	8.9	8.9	9.0	9.1	9.2	9.8	10.0	10.0
	L	8.5	8.9	9.5	9.4	9.4	9.5	9.6	9.8	10.0	10.0	10.0
39	T	8.1	8.1	8.6	8.9	8.8	8.9	8.9	9.2	9.2	9.4	9.3
	L	8.4	8.9	9.1	9.4	9.4	9.6	9.8	10.0	9.9	9.9	9.7
61	T	8.2	8.2	8.5	8.4	8.9	8.9	9.0	9.2	9.7	9.9	10.0
	L	8.5	8.5	8.7	8.9	8.9	8.9	9.1	9.4	10.0	10.0	10.0

TABLE 51. Discernability Ratings for Removable Tape Lines on Portland Cement Concrete Pavement (Kentucky)

SAMPLE		Months After Removal										
NUMBER		0	1	2	3	4	5	6	7	8	9	10
Removable Tape, White												
29	T	4.0	7.3	8.8	9.1	9.4	9.6	9.9	10.0	10.0	10.0	10.0
	L	2.2	8.7	9.8	9.6	10.0	10.0	10.0	10.0	10.0	10.0	10.0
38	T	4.2	7.3	8.4	8.9	9.0	9.1	9.4	9.3	9.4	10.0	10.0
	L	3.2	7.4	8.2	9.0	9.1	9.2	9.3	9.5	9.7	9.8	10.0
54	T	1.6	3.9	5.5	6.1	6.6	7.3	7.7	7.9	8.3	8.7	9.0
	L	1.6	4.0	5.4	5.7	6.5	7.1	7.3	7.5	7.3	7.8	8.3
Removable Tape, Yellow												
28	T	4.0	6.9	7.8	8.4	8.9	9.3	9.6	9.8	10.0	10.0	10.0
	L	4.4	9.0	9.6	9.9	9.9	9.9	10.0	10.0	10.0	10.0	10.0
39	T	4.5	7.4	8.4	8.9	9.0	9.1	9.2	9.3	9.3	9.5	10.0
	L	3.1	7.4	8.9	9.1	9.3	9.3	9.4	9.5	9.4	9.7	10.0
61	T	2.1	3.8	5.1	5.9	6.6	7.0	7.3	7.6	7.7	7.7	8.7
	L	1.7	4.2	5.7	5.6	6.5	6.7	7.0	7.3	7.2	7.5	8.3

TABLE 52. Discernability Ratings for Removable Tape Lines on Portland Cement Concrete Pavement (Alabama)

SAMPLE NUMBER		Months After Removal										
		0	1	2	3	4	5	6	7	8	9	10
Removable Tape, White												
29	T	8.5	8.9	9.1	9.3	9.6	9.7	9.8	10.0	10.0	10.0	10.0
	L	8.6	9.8	9.8	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
38	T	8.1	8.4	8.4	8.4	8.7	7.0	8.6	8.5	8.8	8.9	9.0
	L	8.7	8.8	8.9	9.2	9.0	9.0	9.1	9.2	9.3	9.3	9.7
54	T	8.2	8.2	8.2	8.3	8.4	8.5	8.7	8.8	9.1	9.2	9.7
	L	8.4	8.7	8.9	9.1	8.9	9.1	9.3	9.4	9.3	9.7	10.0
Removable Tape, Yellow												
28	T	8.5	9.0	9.2	9.5	9.7	9.7	9.9	10.0	10.0	10.0	10.0
	L	8.6	10.0	9.9	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
39	T	8.4	8.4	8.4	8.6	8.5	8.5	8.9	8.9	9.3	9.5	10.0
	L	8.6	9.0	9.0	9.2	9.2	9.4	9.5	9.9	9.9	9.7	10.0
61	T	8.3	8.3	8.3	8.3	8.3	8.3	8.5	8.6	8.9	9.0	9.3
	L	8.6	8.6	8.8	9.1	9.0	9.0	9.2	9.4	9.4	9.7	9.7

APPENDIX A

LABORATORY TESTS FOR THERMOPLASTIC MATERIALS

TEST METHODS USED IN EVALUATION OF
THERMOPLASTIC

TEST PERFORMED	FEDERAL SPEC.	ASTM	OTHER
Softening Point Specific Gravity Bond Strength Indentation Resistance (Type A) Flowability Flowability (Extended Heating) Low Temperature Stress Resistance Bead Content and Grading		D2240	AASHTO T250 AASHTO T250 AASHTO T250 AASHTO T250 AASHTO T250 AASHTO T250 AASHTO T250

TEST RESULTS FOR REGIONAL TEST FACILITY
FOR CALENDAR YEAR: 1989
*** THERMOPLASTIC STRIPING MATERIAL ***

PAGE 1

RTF I.D. NO.	PRODUCT NAME	PREFORMED TYPE	PREFORM TYPE CODE	COLOR	SFT PT. DEG F	SPEC GRAV	BOND STR. LB/SQ. IN	IND RES A	FLOW EXT. HEAT	LOW TEMP STRESS RESIST	BEAD BEADS CONT %	BEADS RET #70
STR-89-01	PREMARK	HYDROCARBON	L H	WHITE	214	1.99	158	100	13	15	NO CRACKS	6
STR-89-34	LW-89-1-W	HYDROCARBON	L H	YELLOW	202	1.92	29	94	12	10	NO CRACKS	IN
STR-89-35	LW-89-1-V	HYDROCARBON	L H	WHITE	204	1.91	30	86	10	9	NO CRACKS	37
STR-89-46	LW-89-1-Z	ALKYD	L A	YELLOW	209	1.89	72	97	17	15	NO CRACKS	49
STR-89-47	LW-89-1-Y	ALKYD	L A	WHITE	208	2.01	65	97	14	12	NO CRACKS	32
STR-89-57	CATATHERM	HYDROCARBON	L H	YELLOW	204	1.95	83	97	22	17	NO CRACKS	38
STR-89-58	CATATHERM	HYDROCARBON	L H	WHITE	206	2.04	69	96	22	13	NO CRACKS	50
STR-89-59	CATATHERM	ALKYD	L A	YELLOW	210	2.07	157	98	12	13	NO CRACKS	52
STR-89-60	CATATHERM	ALKYD	L A	WHITE	210	2.11	103	98	17	14	CRACKED	IN

IN = INSUFFICIENT SAMPLE

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
RTF THERMOPLASTIC STRIPING MATERIAL(250)
DISTRICT 22

06-15-90

PROJECT NUMBER..MATLAB	DATE SAMPLED..05-05-89
LAB NUMBER.....22-539037	DATE TESTED...03-23-90
IDENT.....	QUANTITY..... 1 GAL
PURPOSE..SOURCE APPROVAL	SPEC CODE.....3
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS	
SOURCE...FLINT TRADING COMPANY	GREENSBORO, NC
REMARKS..FOR INFORMATIONAL PURPOSES ONLY	

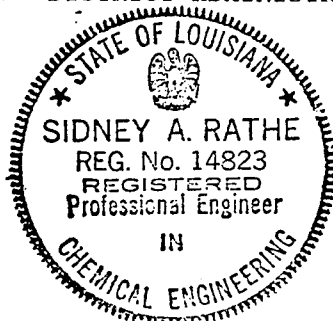
ITEM NO..

TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	PREMARK	
RTF I.D. NO.	STR-89-01	
TYPE	PREFORMED	
TYPE (CODE)	PREFORM	
COLOR	WHITE	
SOFTENING POINT (DEG. F)	214	
SPECIFIC GRAVITY	1.99	
BOND STRENGTH (LB./SQ. IN.)	158	
INDENTATION RESISTANCE (TYPE A)	100	
FLOWABILITY (% RESIDUE)	13	
FLOWABILITY (% RESIDUE) EXTENDED HEATING	15	
LOW TEMPERATURE STRESS RESISTANCE	NO CRACKS	
GLASS BEAD CONTENT, %	44	
GLASS BEADS, % RETAINED #40 SIEVE	90	
GLASS BEADS, % RETAINED #70 SIEVE	6	

REMARKS..

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DISTRICT ADMINISTRATOR



MATERIALS ENGINEER BY

WES

PC Rathe

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EXCEPTION REPORT FOR THE TEST OF
RTF THERMOPLASTIC STRIPING MATERIAL(250)
DISTRICT 22

06-15-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-531801
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...LINEAR DYNAMICS, INC.
REMARKS..FOR INFORMATIONAL PURPOSES ONLY

DATE SAMPLED..05-05-89
DATE TESTED...02-16-90
QUANTITY..... 2 GAL
SPEC CODE.....3
BALL GROUND, GA

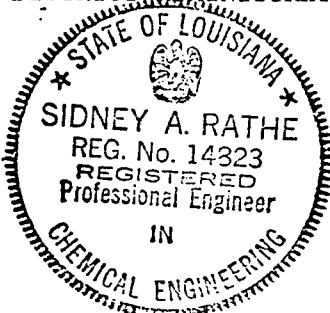
ITEM NO..

TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	LW-89-1-W	
RTF I.D. NO.	STR-89-34	
TYPE	HYDROCARBON	
TYPE (CODE)	L H	
COLOR	YELLOW	
SOFTENING POINT (DEG. F)	202	
SPECIFIC GRAVITY	1.92	
BOND STRENGTH (LB./SQ. IN.)	29	
INDENTATION RESISTANCE (TYPE A)	94	
FLOWABILITY (% RESIDUE)	12	
FLOWABILITY (% RESIDUE) EXTENDED HEATING	10	
LOW TEMPERATURE STRESS RESISTANCE	NO CRACKS	
GLASS BEAD CONTENT, %	INSUF. SAMPLE	
GLASS BEADS, % RETAINED #40 SIEVE	INSUF. SAMPLE	
GLASS BEADS, % RETAINED #70 SIEVE	INSUF. SAMPLE	

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DISTRICT LAB ENGINEER
DISTRICT ADMINISTRATOR



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S. A. Rathe
b422

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EXCEPTION REPORT FOR THE TEST OF
RTF THERMOPLASTIC STRIPING MATERIAL(250)
DISTRICT 22

06-15-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-531802
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...LINEAR DYNAMICS, INC. BALL GROUND, GA
REMARKS..FOR INFORMATIONAL PURPOSES ONLY

DATE SAMPLED..05-05-89
DATE TESTED...02-16-90
QUANTITY..... 2 GAL
SPEC CODE.....3

ITEM NO..

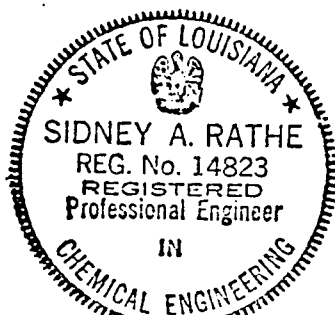
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	LW-89-1-V	
RTF I.D. NO.	STR-89-35	
TYPE	HYDROCARBON	
TYPE (CODE)	LFH	
COLOR	WHITE	
SOFTENING POINT (DEG. F)	204	
SPECIFIC GRAVITY	1.91	
BOND STRENGTH (LB./SQ. IN.)	30	
INDENTATION RESISTANCE (TYPE A)	96	
FLOWABILITY (% RESIDUE)	10	
FLOWABILITY (% RESIDUE) EXTENDED HEATING	9	
LOW TEMPERATURE STRESS RESISTANCE	NO CRACKS	
GLASS BEAD CONTENT, %	29	
GLASS BEADS, % RETAINED #40 SIEVE	56	
GLASS BEADS, % RETAINED #70 SIEVE	37	

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EXCEPTION REPORT FOR THE TEST OF
RTF THERMOPLASTIC STRIPING MATERIAL(250)
DISTRICT 22

06-15-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-531803
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...LINEAR DYNAMICS, INC.
REMARKS..FOR INFORMATIONAL PURPOSES ONLY

DATE SAMPLED..05-05-89
DATE TESTED...02-16-90
QUANTITY..... 2 GAL
SPEC CODE.....3
BALL GROUND, GA

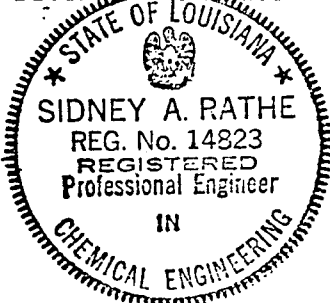
ITEM NO..

TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	LW-89-1-Z	
RTF I.D. NO.	STR-89-46	
TYPE	ALKYD	
TYPE (CODE)	L A	
COLOR	YELLOW	
SOFTENING POINT (DEG. F)	209	
SPECIFIC GRAVITY	1.89	
BOND STRENGTH (LB./SQ. IN.)	72	
INDENTATION RESISTANCE (TYPE A)	97	
FLOWABILITY (% RESIDUE)	17	
FLOWABILITY (% RESIDUE) EXTENDED HEATING	15	
LOW TEMPERATURE STRESS RESISTANCE	NO CRACKS	
GLASS BEAD CONTENT, %	35	
GLASS BEADS, % RETAINED #40 SIEVE	47	
GLASS BEADS, % RETAINED #70 SIEVE	49	

REMARKS..

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EXCEPTION REPORT FOR THE TEST OF
RTF THERMOPLASTIC STRIPING MATERIAL(250)
DISTRICT 22

06-15-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-531804
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...LINEAR DYNAMICS, INC.
REMARKS..FOR INFORMATIONAL PURPOSES ONLY

DATE SAMPLED..05-05-89
DATE TESTED...02-16-90
QUANTITY..... 2 GAL
SPEC CODE.....3
BALL GROUND, GA

ITEM NO..

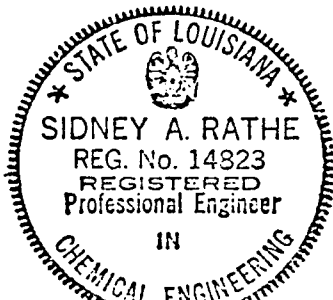
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	LW-89-1-Y	
RTF I.D. NO.	STR-89-47	
TYPE	ALKYD	
TYPE (CODE)	LFA	
COLOR	WHITE	
SOFTENING POINT (DEG. F)	208	
SPECIFIC GRAVITY	2.01	
BOND STRENGTH (LB./SQ. IN.)	65	
INDENTATION RESISTANCE (TYPE A)	97	
FLOWABILITY (% RESIDUE)	14	
FLOWABILITY (% RESIDUE) EXTENDED HEATING	12	
LOW TEMPERATURE STRESS RESISTANCE	NO CRACKS	
GLASS BEAD CONTENT, %	32	
GLASS BEADS, % RETAINED #40 SIEVE	43	
GLASS BEADS, % RETAINED #70 SIEVE	52	

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MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
RTF THERMOPLASTIC STRIPING MATERIAL(250)
DISTRICT 22

06-15-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-531805
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...CATAPHOTE, INC. JACKSON, MS
REMARKS..FOR INFORMATIONAL PURPOSES ONLY

ITEM NO..

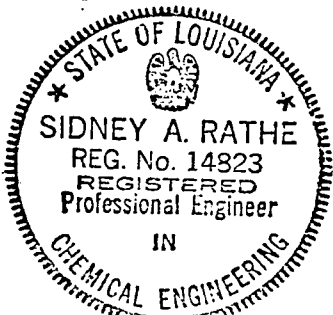
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	CATATHERM	
RTF I.D. NO.	STR-89-57	
TYPE	HYDROCARBON	
TYPE (CODE)	L H	
COLOR	YELLOW	
SOFTENING POINT (DEG. F)	204	
SPECIFIC GRAVITY	1.95	
BOND STRENGTH (LB./SQ. IN.)	83	
INDENTATION RESISTANCE (TYPE A)	97	
FLOWABILITY (% RESIDUE)	22	
FLOWABILITY (% RESIDUE) EXTENDED HEATING	17	
LOW TEMPERATURE STRESS RESISTANCE	NO CRACKS	
GLASS BEAD CONTENT, %	38	
GLASS BEADS, % RETAINED #40 SIEVE	67	
GLASS BEADS, % RETAINED #70 SIEVE	25	

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RTF THERMOPLASTIC STRIPING MATERIAL(250)
DISTRICT 22

07-18-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-531806
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...CATAPHOTE, INC. JACKSON, MS
REMARKS..FOR INFORMATIONAL PURPOSES ONLY

DATE SAMPLED..05-02-89
DATE TESTED...02-16-90
QUANTITY..... 2 GAL
SPEC CODE.....3

ITEM NO..

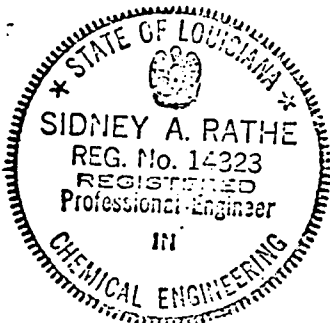
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	CATATHERM	
RTF I.D. NO.	STR-89-58	
TYPE	HYDROCARBON	
TYPE (CODE)	LFH	
COLOR	WHITE	
SOFTENING POINT (DEG. F)	206	
SPECIFIC GRAVITY	2.04	
BOND STRENGTH (LB./SQ. IN.)	69	
INDENTATION RESISTANCE (TYPE A)	96	
FLOWABILITY (% RESIDUE)	22	
FLOWABILITY (% RESIDUE) EXTENDED HEATING	13	
LOW TEMPERATURE STRESS RESISTANCE	NO CRACKS	
GLASS BEAD CONTENT, %	50	
GLASS BEADS, % RETAINED #40 SIEVE	36	
GLASS BEADS, % RETAINED #70 SIEVE	60	

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RTF THERMOPLASTIC STRIPING MATERIAL(250)
DISTRICT 22

06-15-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-531807
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...CATAPHOTE, INC. JACKSON, MS
REMARKS..FOR INFORMATIONAL PURPOSES ONLY

DATE SAMPLED..05-02-89
DATE TESTED...02-16-90
QUANTITY..... 1 GAL
SPEC CODE.....3

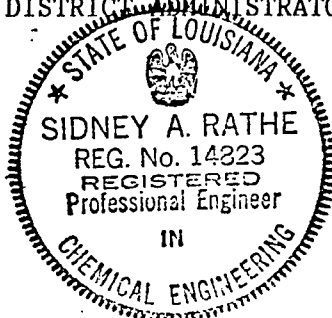
ITEM NO..

TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	CATATHERM	
RTF I.D. NO.	STR-89-59	
TYPE	ALKYD	
TYPE (CODE)	L A	
COLOR	YELLOW	
SOFTENING POINT (DEG. F)	210	
SPECIFIC GRAVITY	2.07	
BOND STRENGTH (LB./SQ. IN.)	157	
INDENTATION RESISTANCE (TYPE A)	98	
FLOWABILITY (% RESIDUE)	12	
FLOWABILITY (% RESIDUE) EXTENDED HEATING	13	
LOW TEMPERATURE STRESS RESISTANCE	NO CRACKS	
GLASS BEAD CONTENT, %	52	
GLASS BEADS, % RETAINED #40 SIEVE	76	
GLASS BEADS, % RETAINED #70 SIEVE	17	

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W. Rathe
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DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
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EXCEPTION REPORT FOR THE TEST OF
RTF THERMOPLASTIC STRIPING MATERIAL(250)
DISTRICT 22

07-18-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-531808
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...CATAPHOTE, INC. JACKSON, MS
REMARKS..FOR INFORMATIONAL PURPOSES ONLY

DATE SAMPLED..05-02-89
DATE TESTED...02-16-90
QUANTITY..... 1 GAL
SPEC CODE.....3

ITEM NO..

TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	CATATHERM	
RTF I.D. NO.	STR-89-60	
TYPE	ALKYD	
TYPE (CODE)	LFA	
COLOR	WHITE	
SOFTENING POINT (DEG. F)	210	
SPECIFIC GRAVITY	2.11	
BOND STRENGTH (LB./SQ. IN.)	103.	
INDENTATION RESISTANCE (TYPE A)	98	
FLOWABILITY (% RESIDUE)	17	
FLOWABILITY (% RESIDUE) EXTENDED HEATING	14	
LOW TEMPERATURE STRESS RESISTANCE	CRACKED	
GLASS BEAD CONTENT, %	INSUF. SAMPLE	
GLASS BEADS, % RETAINED #40 SIEVE	INSUF. SAMPLE	
GLASS BEADS, % RETAINED #70 SIEVE	INSUF. SAMPLE	

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APPENDIX B

LABORATORY TESTS FOR SOLVENTBORNE TRAFFIC PAINT

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533553
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-2

DATE SAMPLED..07-06-89
DATE TESTED...09-28-89
QUANTITY..... 1 GAL
SPEC CODE.....3

ITEM NO..

TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	SETFAST	
RTF I.D. NUMBER	STR 89-02	
TYPE	LEAD FREE ALKYD	
TYPE (CODE)	LFA	
BATCH NUMBER	BP50-24	
COLOR	WHITE	
PIGMENT, %	55.5	
TOTAL SOLIDS, %	73.6	
NO TRACK DRY TIME, MINUTES	17.5	
VISCOSITY, KU	74	
OPACITY (CONTRAST RATIO)	.995	
INFRARED SPECTRA	ON FILE	

REMARKS..

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MATERIALS ENGINEER BY



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DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533554
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-3
DATE SAMPLED..07-06-89
DATE TESTED...09-13-89
QUANTITY..... 1 GAL
SPEC CODE.....3

ITEM NO..

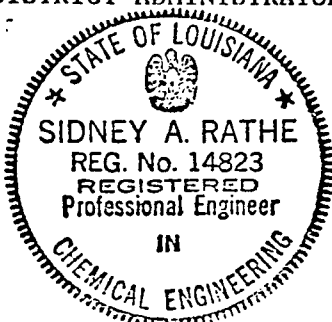
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	SETFAST	
RTF I.D. NUMBER	STR 89-03	
TYPE	LEADED ALKYD	
TYPE (CODE)	LA	
BATCH NUMBER	BP50-25	
COLOR	YELLOW	
PIGMENT, %	56.4	
TOTAL SOLIDS, %	74.5	
NO TRACK DRY TIME, MINUTES	16	
VISCOSITY, KU	77	
OPACITY (CONTRAST RATIO)	.991	
INFRARED SPECTRA	ON FILE	

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MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533555
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-4
DATE SAMPLED..07-06-89
DATE TESTED...09-14-89
QUANTITY..... 1 GAL
SPEC CODE.....3

ITEM NO..

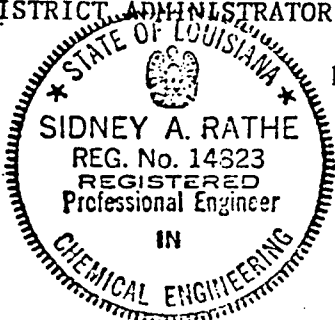
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	HOTLINE	
RTF I.D. NUMBER	STR 89-04	
TYPE	LEAD FREE ALKYD	
TYPE (CODE)	LFA	
BATCH NUMBER	BP50-26	
COLOR	WHITE	
PIGMENT, %	62.1	
TOTAL SOLIDS, %	75.2	
NO TRACK DRY TIME, MINUTES	1	
VISCOSITY, KU	95	
OPACITY (CONTRAST RATIO)	.999	
INFRARED SPECTRA	ON FILE	

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MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533556
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-5
DATE SAMPLED..07-06-89
DATE TESTED...09-21-89
QUANTITY..... 1 GAL
SPEC CODE.....3

ITEM NO..

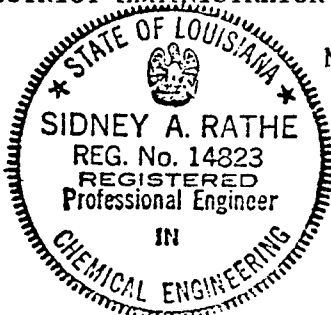
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	HOTLINE	
RTF I.D. NUMBER	STR 89-05	
TYPE	LEADED ALKYD	
TYPE (CODE)	LA	
BATCH NUMBER	BP50-27	
COLOR	YELLOW	
PIGMENT, %	62.9	
TOTAL SOLIDS, %	76.1	
NO TRACK DRY TIME, MINUTES	1.5	
VISCOSITY, KU	93	
OPACITY (CONTRAST RATIO)	.986	
INFRARED SPECTRA	ON FILE	

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MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533557
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-6

DATE SAMPLED..07-06-89
DATE TESTED...09-22-89
QUANTITY..... 1 GAL
SPEC CODE.....3

ITEM NO..

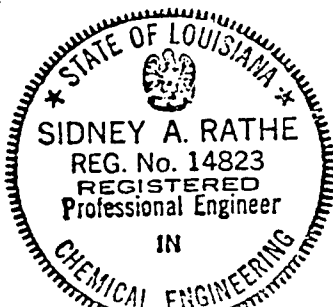
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	HOTLINE	
RTF I.D. NUMBER	STR 89-06	
TYPE	LEAD FREE ALKYD	
TYPE (CODE)	LFA	
BATCH NUMBER	BP50-28	
COLOR	WHITE	
PIGMENT, %	57.7	
TOTAL SOLIDS, %	76.2	
NO TRACK DRY TIME, MINUTES	6	
VISCOSITY, KU	100	
OPACITY (CONTRAST RATIO)	.999	
INFRARED SPECTRA	ON FILE	

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MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533558
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-7
DATE SAMPLED..07-06-89
DATE TESTED...10-10-89
QUANTITY..... 1 GAL
SPEC CODE.....3

ITEM NO..

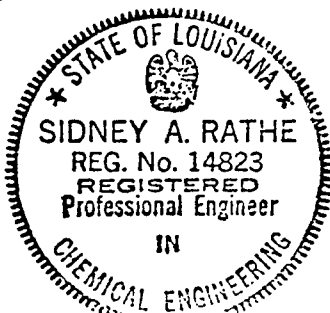
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	HOTLINE	
RTF I.D. NUMBER	STR 89-07	
TYPE	LEADED ALKYD	
TYPE (CODE)	LA	
BATCH NUMBER	BP50-29	
COLOR	YELLOW	
PIGMENT, %	57.7	
TOTAL SOLIDS, %	74.7	
NO TRACK DRY TIME, MINUTES	10	
VISCOSITY, KU	93	
OPACITY (CONTRAST RATIO)	.993	
INFRARED SPECTRA	ON FILE	

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MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533559
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-8
DATE SAMPLED..07-06-89
DATE TESTED...10-10-89
QUANTITY..... 1 GAL
SPEC CODE.....3

ITEM NO..

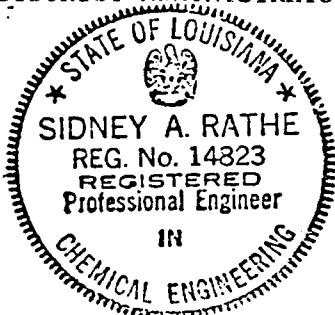
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	HOTLINE	
RTF I.D. NUMBER	STR 89-08	
TYPE	LEAD FREE ALKYD	
TYPE (CODE)	LFA	
BATCH NUMBER	BP50-30	
COLOR	WHITE	
PIGMENT, %	61.8	
TOTAL SOLIDS, %	75.1	
NO TRACK DRY TIME, MINUTES	2	
VISCOSITY, KU	98	
OPACITY (CONTRAST RATIO)	.995	
INFRARED SPECTRA	ON FILE	

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MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533560
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-9
DATE SAMPLED..07-06-89
DATE TESTED...09-20-89
QUANTITY..... 1 GAL
SPEC CODE.....3

ITEM NO..

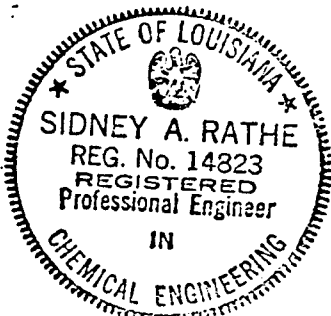
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	HOTLINE	
RTF I.D. NUMBER	STR 89-09	
TYPE	LEADED ALKYD	
TYPE (CODE)	LA	
BATCH NUMBER	BP50-31	
COLOR	YELLOW	
PIGMENT, %	62.5	
TOTAL SOLIDS, %	75.5	
NO TRACK DRY TIME, MINUTES	1.5	
VISCOSITY, KU	103	
OPACITY (CONTRAST RATIO)	.998	
INFRARED SPECTRA	ON FILE	

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MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533561
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-10
DATE SAMPLED..07-06-89
DATE TESTED...09-22-89
QUANTITY..... 1 GAL
SPEC CODE.....3

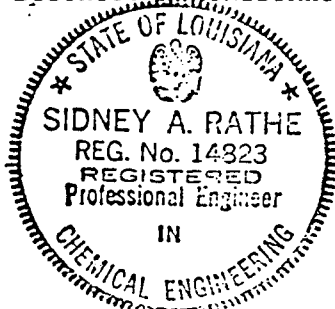
ITEM NO..

TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	HOTLINE	
RTF I.D. NUMBER	STR 89-10	
TYPE	LEAD FREE ALKYD	
TYPE (CODE)	LFA	
BATCH NUMBER	BP50-32	
COLOR	WHITE	
PIGMENT, %	56.7	
TOTAL SOLIDS, %	73.4	
NO TRACK DRY TIME, MINUTES	5	
VISCOSITY, KU	107	
OPACITY (CONTRAST RATIO)	1.000	
INFRARED SPECTRA	ON FILE	

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MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533562
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-11
DATE SAMPLED..07-06-89
DATE TESTED...10-23-89
QUANTITY..... 1 GAL
SPEC CODE.....3

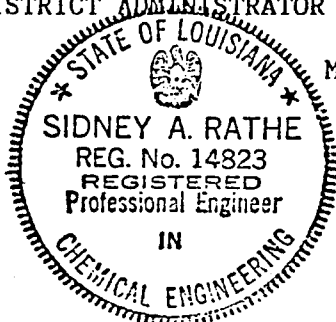
ITEM NO..

TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	HOTLINE	
RTF I.D. NUMBER	STR 89-11	
TYPE	LEADED ALKYD	
TYPE (CODE)	LA	
BATCH NUMBER	BP50-33	
COLOR	YELLOW	
PIGMENT, %	56.7	
TOTAL SOLIDS, %	74.5	
NO TRACK DRY TIME, MINUTES	6	
VISCOSITY, KU	111	
OPACITY (CONTRAST RATIO)	.996	
INFRARED SPECTRA	ON FILE	

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MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533563
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-12
DATE SAMPLED..07-06-89
DATE TESTED...10-23-89
QUANTITY..... 1 GAL
SPEC CODE.....3

ITEM NO..

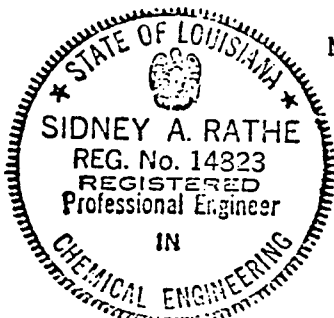
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	SETFAST	
RTF I.D. NUMBER	STR 89-12	
TYPE	CHLOR RUB ALKYD	
TYPE (CODE)	LFCRA	
BATCH NUMBER	BP50-34	
COLOR	WHITE	
PIGMENT, %	48.5	
TOTAL SOLIDS, %	69.9	
NO TRACK DRY TIME, MINUTES	4	
VISCOSITY, KU	76	
OPACITY (CONTRAST RATIO)	.995	
INFRARED SPECTRA	ON FILE	

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REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533564
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-13
DATE SAMPLED..07-06-89
DATE TESTED...10-23-89
QUANTITY..... 1 GAL
SPEC CODE.....3

ITEM NO..

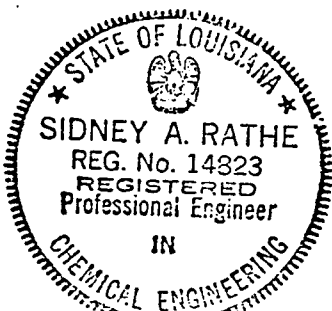
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	SETFAST	
RTF I.D. NUMBER	STR 89-13	
TYPE	CHLOR RUB ALKYD	
TYPE (CODE)	LCRA	
BATCH NUMBER	BP50-35	
COLOR	YELLOW	
PIGMENT, %	50.1	
TOTAL SOLIDS, %	70.9	
NO TRACK DRY TIME, MINUTES	4	
VISCOSITY, KU	77	
OPACITY (CONTRAST RATIO)	.998	
INFRARED SPECTRA	ON FILE	

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MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533572
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-21
DATE SAMPLED..07-06-89
DATE TESTED...10-23-89
QUANTITY..... 1 GAL
SPEC CODE.....3

ITEM NO..

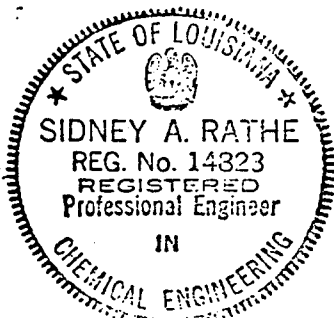
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	SETFAST	
RTF I.D. NUMBER	STR 89-21	
TYPE	POLYESTER	
TYPE (CODE)	LFUPR	
BATCH NUMBER	BP50-44	
COLOR	WHITE	
PIGMENT, %	34.2	
TOTAL SOLIDS, %	68.6	
NO TRACK DRY TIME, MINUTES	160	
VISCOSITY, KU	85	
OPACITY (CONTRAST RATIO)	.997	
INFRARED SPECTRA	ON FILE	

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MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB	DATE SAMPLED..07-06-89
LAB NUMBER.....22-533573	DATE TESTED...10-23-89
IDENT.....	QUANTITY..... 1 GAL
PURPOSE..SOURCE APPROVAL	SPEC CODE.....3
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS	
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD	
REMARKS..STR 89-22	

ITEM NO..

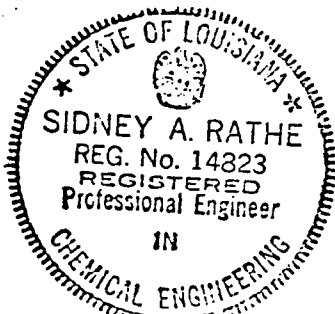
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	SETFAST	
RTF I.D. NUMBER	STR 89-22	
TYPE	POLYESTER	
TYPE (CODE)	LUPR	
BATCH NUMBER	BP50-45	
COLOR	YELLOW	
PIGMENT, %	45.1	
TOTAL SOLIDS, %	71.2	
NO TRACK DRY TIME, MINUTES	155	
VISCOSITY, KU	86	
OPACITY (CONTRAST RATIO)	.988	
INFRARED SPECTRA	ON FILE	

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EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533574
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-23
DATE SAMPLED..07-06-89
DATE TESTED...10-23-89
QUANTITY..... 1 GAL
SPEC CODE.....3

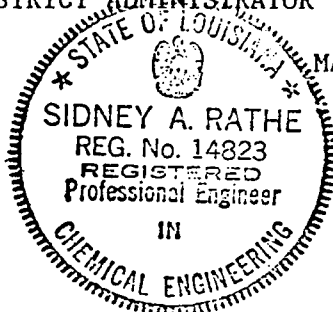
ITEM NO..

TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	SETFAST	
RTF I.D. NUMBER	STR 89-23	
TYPE	POLYESTER	
TYPE (CODE)	LFUPR	
BATCH NUMBER	BP50-46	
COLOR	WHITE	
PIGMENT, %	30.3	
TOTAL SOLIDS, %	66.8	
NO TRACK DRY TIME, MINUTES	155	
VISCOSITY, KU	103	
OPACITY (CONTRAST RATIO)	.996	
INFRARED SPECTRA	ON FILE	

REMARKS..

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MATERIALS ENGINEER BY

A handwritten signature in dark ink, appearing to read "S. A. Rathe", written over a horizontal dashed line.

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DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
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EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533575
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-24

DATE SAMPLED..07-06-89
DATE TESTED...11-06-89
QUANTITY..... 1 GAL
SPEC CODE.....3

ITEM NO..

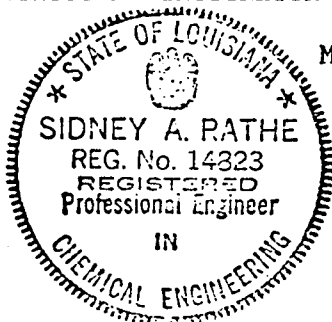
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	SETFAST	
RTF I.D. NUMBER	STR 89-24	
TYPE	POLYESTER	
TYPE (CODE)	LUPR	
BATCH NUMBER	BP50-47	
COLOR	YELLOW	
PIGMENT, %	31.7	
TOTAL SOLIDS, %	66.6	
NO TRACK DRY TIME, MINUTES	160	
VISCOSITY, KU	112	
OPACITY (CONTRAST RATIO)	.996	
INFRARED SPECTRA	ON FILE	

REMARKS..

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EXCEPTION REPORT FOR THE TEST OF
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DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533578
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...LINEAR DYNAMICS, INC.
REMARKS..STR 89-40

DATE SAMPLED..07-06-89
DATE TESTED...09-24-89
QUANTITY..... 1 GAL
SPEC CODE.....3
BALL GROUND, GA

ITEM NO..

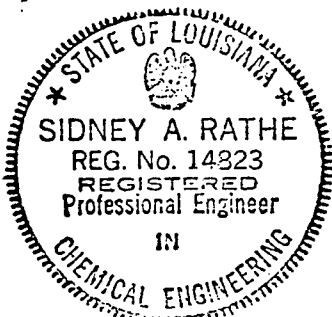
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	LW-89-1-D	
RTF I.D. NUMBER	STR 89-40	
TYPE	LEADED ALKYD	
TYPE (CODE)	LA	
COLOR	YELLOW	
PIGMENT, %	58.3	
TOTAL SOLIDS, %	74.2	
NO TRACK DRY TIME, MINUTES	4	
VISCOSITY, KU	77	
OPACITY (CONTRAST RATIO)	.993	
INFRARED SPECTRA	ON FILE	

REMARKS..

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DISTRICT ADMINISTRATOR

MATERIALS ENGINEER BY



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DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533579
IDENT.....
PURPOSE...SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...LINEAR DYNAMICS, INC.
REMARKS..STR 89-41

DATE SAMPLED..07-06-89
DATE TESTED...11-06-89
QUANTITY..... 1 GAL
SPEC CODE.....3
BALL GROUND, GA

ITEM NO..

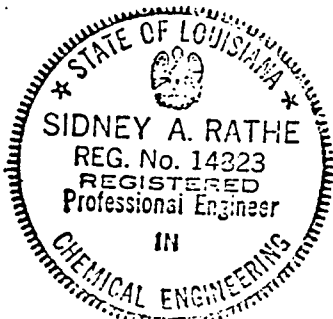
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	LW-89-1-C	
RTF I.D. NUMBER	STR 89-41	
TYPE	LEAD FREE ALKYD	
TYPE (CODE)	LFA	
COLOR	WHITE	
PIGMENT, %	58.5	
TOTAL SOLIDS, %	74.4	
NO TRACK DRY TIME, MINUTES	2.5	
VISCOSITY, KU	90	
OPACITY (CONTRAST RATIO)	.997	
INFRARED SPECTRA	ON FILE	

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MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533580
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...LINEAR DYNAMICS, INC.
REMARKS..STR 89-42
DATE SAMPLED..07-06-89
DATE TESTED...11-06-89
QUANTITY..... 1 GAL
SPEC CODE.....3
BALL GROUND, GA

ITEM NO..

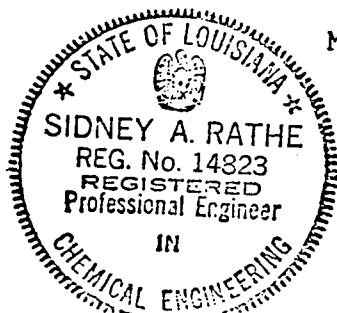
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	LW-89-1-B	
RTF I.D. NUMBER	STR 89-42	
TYPE	LEADED ALKYD	
TYPE (CODE)	LA	
COLOR	YELLOW	
PIGMENT, %	60.4	
TOTAL SOLIDS, %	74.1	
NO TRACK DRY TIME, MINUTES	4	
VISCOSITY, KU	71	
OPACITY (CONTRAST RATIO)	.993	
INFRARED SPECTRA	ON FILE	

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MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533581
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...LINEAR DYNAMICS, INC.
REMARKS..STR 89-43

DATE SAMPLED..07-06-89
DATE TESTED...11-06-89
QUANTITY..... 1 GAL
SPEC CODE.....3
BALL GROUND, GA

ITEM NO..

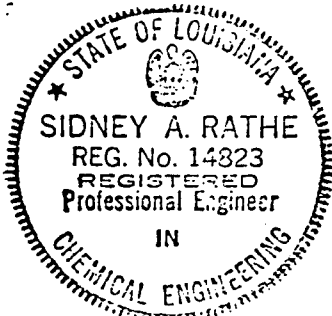
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	LW-89-1-A	
RTF I.D. NUMBER	STR 89-43	
TYPE	LEAD FREE ALKYD	
TYPE (CODE)	LFA	
COLOR	WHITE	
PIGMENT, %	60.2	
TOTAL SOLIDS, %	74.1	
NO TRACK DRY TIME, MINUTES	3	
VISCOSITY, KU	81	
OPACITY (CONTRAST RATIO)	.994	
INFRARED SPECTRA	ON FILE	

REMARKS..

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A handwritten signature in black ink, appearing to read "S. A. Rathe", written over a horizontal dashed line.

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DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
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REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

07-18-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533586

DATE SAMPLED..07-06-89

DATE TESTED...11-06-89

IDENT.....

QUANTITY..... 1 GAL

PURPOSE..SOURCE APPROVAL

SPEC CODE.....3

SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS

SOURCE...ENNIS/CENTERLINE, INC.

ENNIS, TX

REMARKS..STR 89-50

ITEM NO..

TEST PROPERTY

VALUE

REMARKS

PRODUCT NAME

EN-9000

RTF I.D. NUMBER

STR 89-50

TYPE

LEADED ALKYD

TYPE (CODE)

LFA

COLOR

WHITE

PIGMENT, %

53.7

TOTAL SOLIDS, %

70.2

NO TRACK DRY TIME, MINUTES

4.5

VISCOSITY, KU

91

OPACITY (CONTRAST RATIO)

.995

INFRARED SPECTRA

ON FILE

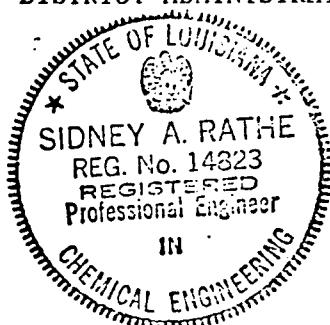
REMARKS..

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S. A. Rathe
1482

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DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533588
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...ENNIS/CENTERLINE, INC.
REMARKS..STR 89-52

DATE SAMPLED..07-06-89
DATE TESTED...11-06-89
QUANTITY..... 1 GAL
SPEC CODE.....3
ENNIS, TX

ITEM NO..

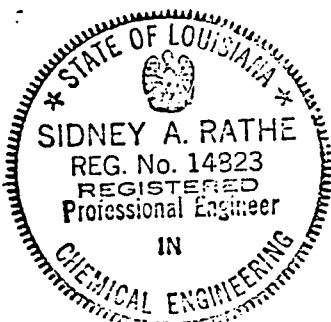
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	EN-9001	
RTF I.D. NUMBER	STR 89-52	
TYPE	LEADED ALKYD	
TYPE (CODE)	LA	
COLOR	YELLOW	
PIGMENT, %	53.7	
TOTAL SOLIDS, %	70.5	
NO TRACK DRY TIME, MINUTES	4	
VISCOSITY, KU	91	
OPACITY (CONTRAST RATIO)	.995	
INFRARED SPECTRA	ON FILE	

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DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533589
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...ENNIS/CENTERLINE, INC.
REMARKS..STR 89-53

DATE SAMPLED..07-06-89
DATE TESTED...11-06-89
QUANTITY..... 1 GAL
SPEC CODE.....3
ENNIS, TX

ITEM NO..

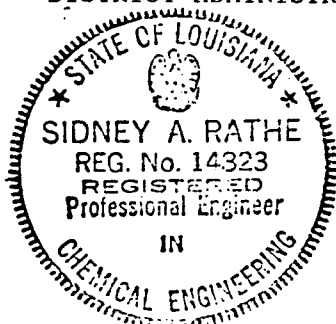
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	EN-9005	
RTF I.D. NUMBER	STR 89-53	
TYPE	LEAD FREE ALKYD	
TYPE (CODE)	LFA	
COLOR	YELLOW	
PIGMENT, %	54.7	
TOTAL SOLIDS, %	71.1	
NO TRACK DRY TIME, MINUTES	6.5	
VISCOSITY, KU	81	
OPACITY (CONTRAST RATIO)	.982	
INFRARED SPECTRA	ON FILE	

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DISTRICT ADMINISTRATOR

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APPENDIX C

LABORATORY TESTS FOR WATERBORNE (ACRYLIC LATEX POLYMER) TRAFFIC PAINT

TEST METHODS USED IN EVALUATION OF
WATERBORNE TRAFFIC PAINT

TEST PERFORMED	FEDERAL SPEC.	ASTM	OTHER
Pigment Content		D3723	
Total Solids		D2369	
No Track Dry Time		D711	
Viscosity		D562	
Heat Stability			See Note 1
Freeze-Thaw Stability			See Note 2
Water Resistance			See Note 3
Opacity (Contrast Ratio)			See Note 4
Infrared Spectra		D2621	
X-Ray Diffraction			Dried Film Scan

NOTE 1 - HEAT STABILITY: Put 450 ml of paint in a 473 ml (1 pint) lined container, close the container, seal it with tape, and put it in an oven maintained at $60^{\circ} \pm 1^{\circ} \text{C}$ for one week. Equilibrate the paint at standard conditions and mix thoroughly with gentle stirring. Perform the consistency test as specified in ASTM D 562.

NOTE 2 - FREEZE THAW STABILITY: Put 450 ml of paint in a 473 ml (1 pint) lined container, close the container, invert, and place in a chamber maintained at $-10^{\circ} \pm 1^{\circ} \text{C}$. Remove the container after 16 hours and maintain at standard conditions for 8 hours. Repeat this procedure four more times. At the completion of the freeze-thaw cycles, equilibrate the paint at standard conditions, mix thoroughly with gentle stirring, and examine for smoothness and uniformity. Perform the consistency test as specified in ASTM D 562. Evidence of coagulation or breaking of the emulsion shall be reported.

NOTE 3 - WATER RESISTANCE: Apply the paint on a clean glass plate, to a wet film thickness of 15 mil (0.015 inch) and allow to dry in a horizontal position at standard conditions for 72 hours. Immerse one half of the painted plate in distilled water at $25 \pm 1^{\circ} \text{C}$. After 18 hours, remove the panel from the water and allow to dry for 2 hours at standard conditions. Examine for softening, blister wrinkle or loose adhesion.

NOTE 4 - DRY OPACITY: On a black-white Leneta Form 2C opacity chart, draw down film covering black and white portions of chart, use a 15 mil gap doctor blade, dry for 24 hours at 77°F , use a Hunter Lab D25-2 Color Difference Meter $0^{\circ}/45^{\circ}$.

$$\text{DRY OPACITY} = \frac{\text{REFLECTANCE OVER BLACK}}{\text{REFLECTANCE OVER WHITE}}$$

TEST RESULTS FOR REGIONAL TEST FACILITY FOR CALENDAR YEAR: 1989

PAGE 1

***** WATER BORNE TRAFFIC PAINT *****

RTF I.D. NO.	PRODUCT NAME	TYPE CODE	BATCH NO.	COLOR	PIGM %	TOT SOL %	DRY TIME MIN.	OPACITY CONTRAST RATIO	VISC KU	HEAT STAB KU	FR/TH STAB KU	WATER RESISTANCE
STR 89-14	HOTLINE	LFALP	BP50-36	WHITE	49.4	74.2	2.5	1.000	72	74	74	NO EFFECT
STR 89-15	HOTLINE	LALP	BP50-37	YELLOW	48.5	74.1	3	.998	72	73	75	NO EFFECT
STR 89-16	HOTLINE	LFALP	BP50-38	WHITE	58.5	76.4	3	.999	81	82	82	NO EFFECT
STR 89-17	HOTLINE	LALP	BP50-39	YELLOW	58.5	77.9	2.5	1.000	82	79	79	NO EFFECT
STR 89-18	HOTLINE	LFALP	BP50-41	YELLOW	49.7	73.3	2	.996	87	79	87	NO EFFECT
STR 89-19	HOTLINE	LFALP	BP50-52	WHITE	46.3	71.6	3	.997	74	71	74	NO EFFECT
STR 89-20	HOTLINE	LALP	BP50-53	YELLOW	43.9	70.1	3.5	.996	73	71	74	NO EFFECT
STR 89-25	HOTLINE	LFALP	BP50-49	YELLOW	42.8	68.4	3.5	.991	94	76	90	NO EFFECT
STR 89-26	HOTLINE	LFALP	BP50-54	YELLOW	42.5	68.2	3	.996	73	69	76	LOST ADHESION
STR 89-44	ACLIIV	LW		YELLOW	52.6	73.8	7.5	.998	67	70	67	LOST ADHESION
STR 89-45	ACLIIV	LW		WHITE	52.3	73.6	5	.999	70	81	72	NO EFFECT
STR 89-48	EN-9013	LW		YELLOW	51.2	75.4	7.5	.995	90	93	92	BLISTER, WRINKLE
STR 89-49	EN-9011	LW		YELLOW	52.6	75.4	24	.995	77	77	76	NO EFFECT
STR 89-51	EN-9010	LW		WHITE	55.9	77.2	16	.991	98	95	98	BLISTER, WRINKLE

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533565
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-14
DATE SAMPLED..07-06-89
DATE TESTED...12-19-89
QUANTITY..... 1 GAL
SPEC CODE.....3

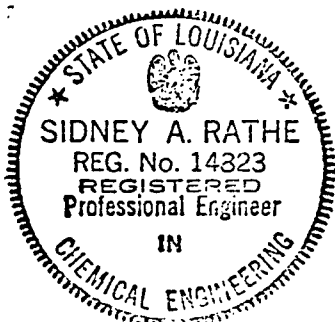
ITEM NO..

TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	HOTLINE	
RTF I.D. NUMBER	STR 89-14	
TYPE	WATERBORNE	
TYPE (CODE)	LFALP	
BATCH NUMBER	BP50-36	
COLOR	WHITE	
PIGMENT, %	49.4	
TOTAL SOLIDS, %	74.2	
NO TRACK DRY TIME, MINUTES	2.5	
VISCOSITY, KU	72	
VISCOSITY, KU - HEAT STABILITY	74	
VISCOSITY, KU - FREEZE THAW STABILITY	74	
OPACITY (CONTRAST RATIO)	1.000	
WATER RESISTANCE	NO EFFECT	

REMARKS..

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DISTRICT LAB ENGINEER
DISTRICT ADMINISTRATOR



MATERIALS ENGINEER BY

P. Q. Rathe

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DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533566
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-15
DATE SAMPLED..07-06-89
DATE TESTED...12-19-89
QUANTITY..... 1 GAL
SPEC CODE.....3

ITEM NO..

TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	HOTLINE	
RTF I.D. NUMBER	STR 89-15	
TYPE	WATERBORNE	
TYPE (CODE)	LALP	
BATCH NUMBER	BF50-37	
COLOR	YELLOW	
PIGMENT, %	48.5	
TOTAL SOLIDS, %	74.1	
NO TRACK DRY TIME, MINUTES	3	
VISCOSITY, KU	72	
VISCOSITY, KU - HEAT STABILITY	73	
VISCOSITY, KU - FREEZE THAW STABILITY	75	
OPACITY (CONTRAST RATIO)	.998	
WATER RESISTANCE	NO EFFECT	

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MATERIAL TESTING SYSTEM
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REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB	DATE SAMPLED..07-06-89
LAB NUMBER.....22-533567	DATE TESTED...12-19-89
IDENT.....	QUANTITY..... 1 GAL
PURPOSE..SOURCE APPROVAL	SPEC CODE.....3
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS	
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD	
REMARKS..STR 89-16	

ITEM NO..

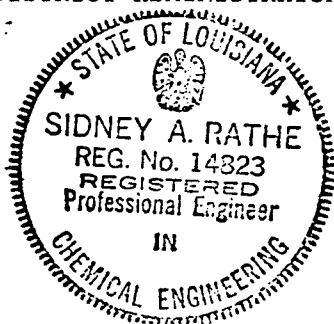
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	HOTLINE	
RTF I.D. NUMBER	STR 89-16	
TYPE	WATERBORNE	
TYPE (CODE)	LFALP	
BATCH NUMBER	BP50-38	
COLOR	WHITE	
PIGMENT, %	58.5	
TOTAL SOLIDS, %	76.4	
NO TRACK DRY TIME, MINUTES	3	
VISCOSITY, KU	81	
VISCOSITY, KU - HEAT STABILITY	82	
VISCOSITY, KU - FREEZE THAW STABILITY	82	
OPACITY (CONTRAST RATIO)	.999	
WATER RESISTANCE	NO EFFECT	

REMARKS..

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MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533568
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-17
DATE SAMPLED..07-06-89
DATE TESTED...12-19-89
QUANTITY..... 1 GAL
SPEC CODE.....3

ITEM NO..

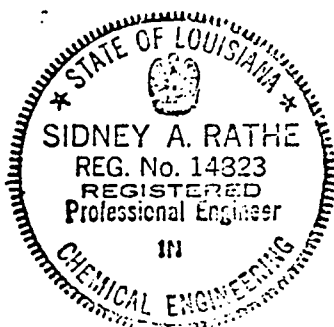
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	HOTLINE	
RTF I.D. NUMBER	STR 89-17	
TYPE	WATERBORNE	
TYPE (CODE)	LALP	
BATCH NUMBER	BP50-39	
COLOR	YELLOW	
PIGMENT, %	58.5	
TOTAL SOLIDS, %	77.9	
NO TRACK DRY TIME, MINUTES	2.5	
VISCOSITY, KU	82	
VISCOSITY, KU - HEAT STABILITY	79	
VISCOSITY, KU - FREEZE THAW STABILITY	79	
OPACITY (CONTRAST RATIO)	1.000	
WATER RESISTANCE	NO EFFECT	

REMARKS..

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EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB	DATE SAMPLED..07-06-89
LAB NUMBER.....22-533569	DATE TESTED...12-19-89
IDENT.....	QUANTITY..... 1 GAL
PURPOSE..SOURCE APPROVAL	SPEC CODE.....3
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS	
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD	
REMARKS..STR 89-18	

ITEM NO..

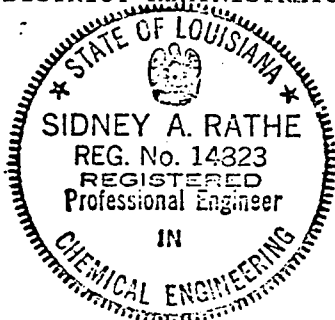
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	HOTLINE	
RTF I.D. NUMBER	STR 89-18	
TYPE	WATERBORNE	
TYPE (CODE)	LFALP	
BATCH NUMBER	BP50-41	
COLOR	YELLOW	
PIGMENT, %	49.7	
TOTAL SOLIDS, %	73.3	
NO TRACK DRY TIME, MINUTES	2	
VISCOSITY, KU	87	
VISCOSITY, KU - HEAT STABILITY	79	
VISCOSITY, KU - FREEZE THAW STABILITY	87	
OPACITY (CONTRAST RATIO)	.996	
WATER RESISTANCE	NO EFFECT	

REMARKS..

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REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533570
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-19
DATE SAMPLED..07-06-89
DATE TESTED...12-19-89
QUANTITY..... 1 GAL
SPEC CODE.....3

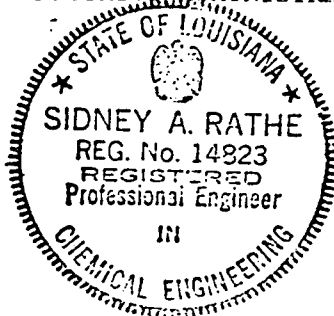
ITEM NO..

TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	HOTLINE	
RTF I.D. NUMBER	STR 89-19	
TYPE	WATERBORNE	
TYPE (CODE)	LFALP	
BATCH NUMBER	BP50-52	
COLOR	WHITE	
PIGMENT, %	45.3	
TOTAL SOLIDS, %	71.6	
NO TRACK DRY TIME, MINUTES	3	
VISCOSITY, KU	74	
VISCOSITY, KU - HEAT STABILITY	71	
VISCOSITY, KU - FREEZE THAW STABILITY	74	
OPACITY (CONTRAST RATIO)	.997	
WATER RESISTANCE	NO EFFECT	

REMARKS..

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DISTRICT ADMINISTRATOR



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DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
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EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533571
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-20
DATE SAMPLED..07-06-89
DATE TESTED...12-19-89
QUANTITY..... 1 GAL
SPEC CODE.....3

ITEM NO..

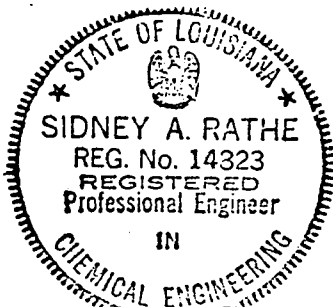
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	HOTLINE	
RTF I.D. NUMBER	STR 89-20	
TYPE	WATERBORNE	
TYPE (CODE)	LALP	
BATCH NUMBER	BP50-53	
COLOR	YELLOW	
PIGMENT, %	43.9	
TOTAL SOLIDS, %	70.1	
NO TRACK DRY TIME, MINUTES	3.5	
VISCOSITY, KU	73	
VISCOSITY, KU - HEAT STABILITY	71	
VISCOSITY, KU - FREEZE THAW STABILITY	74	
OPACITY (CONTRAST RATIO)	.996	
WATER RESISTANCE	NO EFFECT	

REMARKS..

COPIES TO:

SASHTO REGIONAL TEST FACILITY, JACKSON, MS
DISTRICT LAB ENGINEER
DISTRICT ADMINISTRATOR

MATERIALS ENGINEER BY



STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533576
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-25
DATE SAMPLED..07-06-89
DATE TESTED...12-19-89
QUANTITY..... 1 GAL
SPEC CODE.....3

ITEM NO..

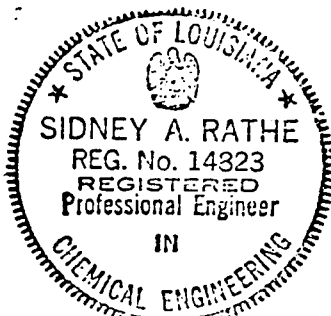
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	HOTLINE	
RTF I.D. NUMBER	STR 89-25	
TYPE	WATERBORNE	
TYPE (CODE)	LFALP	
BATCH NUMBER	BP50-49	
COLOR	YELLOW	
PIGMENT, %	42.8	
TOTAL SOLIDS, %	68.4	
NO TRACK DRY TIME, MINUTES	3.5	
VISCOSITY, KU	94	
VISCOSITY, KU - HEAT STABILITY	76	
VISCOSITY, KU - FREEZE THAW STABILITY	90	
OPACITY (CONTRAST RATIO)	.991	
WATER RESISTANCE	NO EFFECT	

REMARKS..

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EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533577
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...BALTIMORE PAINT & CHEMICAL BALTIMORE, MD
REMARKS..STR 89-26
DATE SAMPLED..07-06-89
DATE TESTED...12-19-89
QUANTITY..... 1 GAL
SPEC CODE.....3

ITEM NO..

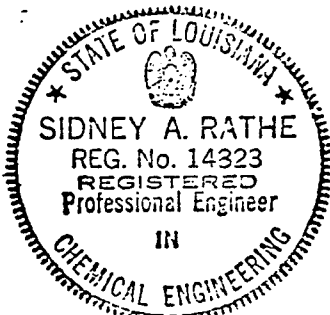
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	HOTLINE	
RTF I.D. NUMBER	STR 89-26	
TYPE	WATERBORNE	
TYPE (CODE)	LFALP	
BATCH NUMBER	BP50-54	
COLOR	YELLOW	
PIGMENT, %	42.5	
TOTAL SOLIDS, %	68.2	
NO TRACK DRY TIME, MINUTES	3	
VISCOSITY, KU	73	
VISCOSITY, KU - HEAT STABILITY	69	
VISCOSITY, KU - FREEZE THAW STABILITY	76	
OPACITY (CONTRAST RATIO)	.996	
WATER RESISTANCE	LOST ADHESION	

REMARKS..

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MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533582
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...LINEAR DYNAMICS, INC.
REMARKS...STR 89-44

DATE SAMPLED..07-06-89
DATE TESTED...12-19-89
QUANTITY..... 1 GAL
SPEC CODE.....3
BALL GROUND, GA

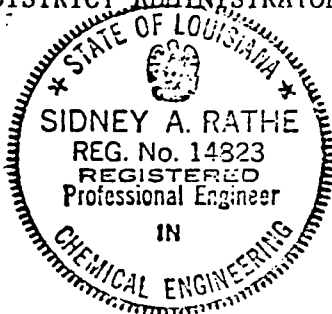
ITEM NO..

TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	ACLIY	
RTF I.D. NUMBER	STR 89-44	
TYPE	WATERBORNE	
TYPE (CODE)	LW	
COLOR	YELLOW	
PIGMENT, %	52.6	
TOTAL SOLIDS, %	73.8	
NO TRACK DRY TIME, MINUTES	7.5	
VISCOSITY, KU	67	
VISCOSITY, KU - HEAT STABILITY	70	
VISCOSITY, KU - FREEZE THAW STABILITY	67	
OPACITY (CONTRAST RATIO)	.998	
WATER RESISTANCE	LOST ADHESION	

REMARKS..

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EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533583
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...LINEAR DYNAMICS, INC.
REMARKS..STR 89-45

DATE SAMPLED..07-06-89
DATE TESTED...12-19-89
QUANTITY..... 1 GAL
SPEC CODE.....3
BALL GROUND, GA

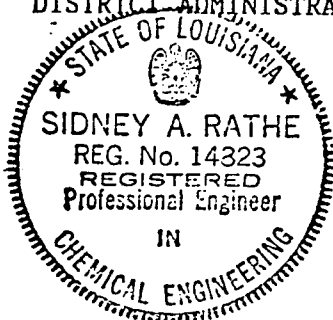
ITEM NO..

TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	ACLIW	
RTF I.D. NUMBER	STR 89-45	
TYPE	WATERBORNE	
TYPE (CODE)	LFW	
COLOR	WHITE	
PIGMENT, %	52.3	
TOTAL SOLIDS, %	73.6	
NO TRACK DRY TIME, MINUTES	5	
VISCOSITY, KU	70	
VISCOSITY, KU - HEAT STABILITY	81	
VISCOSITY, KU - FREEZE THAW STABILITY	72	
OPACITY (CONTRAST RATIO)	.999	
WATER RESISTANCE	NO EFFECT	

REMARKS..

COPIES TO:

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MATERIALS ENGINEER BY

S. A. Rathe

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EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533584
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...ENNIS/CENTERLINE, INC.
REMARKS..STR 89-48

DATE SAMPLED..07-06-89
DATE TESTED...12-19-89
QUANTITY..... 1 GAL
SPEC CODE.....3
ENNIS, TX

ITEM NO..

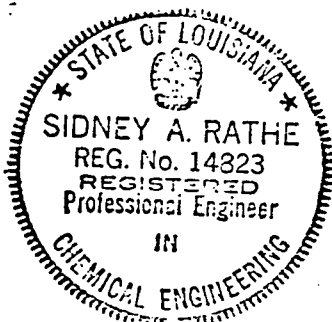
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	EN-9013	
RTF I.D. NUMBER	STR 89-48	
TYPE	WATERBORNE	
TYPE (CODE)	LFW	
COLOR	YELLOW	
PIGMENT, %	51.2	
TOTAL SOLIDS, %	75.4	
NO TRACK DRY TIME, MINUTES	7.5	
VISCOSITY, KU	90	
VISCOSITY, KU - HEAT STABILITY	93	
VISCOSITY, KU - FREEZE THAW STABILITY	92	
OPACITY (CONTRAST RATIO)	.995	
WATER RESISTANCE	BLISTER, WRINKLE	

REMARKS..

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MATERIALS ENGINEER BY



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MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

05-31-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533585
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...ENNIS/CENTERLINE, INC.
REMARKS..STR 89-49

DATE SAMPLED..07-06-89
DATE TESTED...12-20-89
QUANTITY..... 1 GAL
SPEC CODE.....3
ENNIS, TX

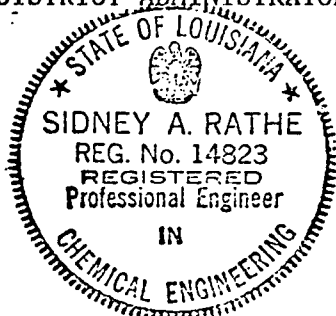
ITEM NO..

TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	EN-9011	
RTF I.D. NUMBER	STR 89-49	
TYPE	WATERBORNE	
TYPE (CODE)	LW	
COLOR	YELLOW	
PIGMENT, %	52.6	
TOTAL SOLIDS, %	75.4	
NO TRACK DRY TIME, MINUTES	24	
VISCOSITY, KU	77	
VISCOSITY, KU - HEAT STABILITY	77	
VISCOSITY, KU - FREEZE THAW STABILITY	76	
OPACITY (CONTRAST RATIO)	.995	
WATER RESISTANCE	NO EFFECT	

REMARKS..

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REGIONAL TEST FACILITY TRAFFIC PAINT(252)
DISTRICT 22

07-18-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533587
IDENT.....
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...ENNIS/CENTERLINE, INC.
REMARKS..STR 89-51

DATE SAMPLED..07-06-89
DATE TESTED...12-20-89
QUANTITY..... 1 GAL
SPEC CODE.....3
ENNIS, TX

ITEM NO..

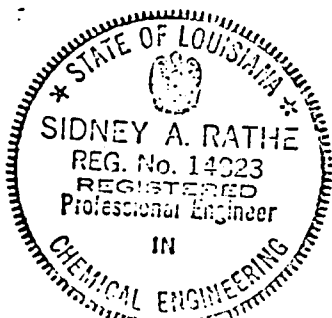
TEST PROPERTY	VALUE	REMARKS
PRODUCT NAME	EN-9010	
RTF I.D. NUMBER	STR 89-51	
TYPE	WATERBORNE	
TYPE (CODE)	LFW	
COLOR	WHITE	
PIGMENT, %	55.9	
TOTAL SOLIDS, %	77.2	
NO TRACK DRY TIME, MINUTES	16	
VISCOSITY, KU	98	
VISCOSITY, KU - HEAT STABILITY	95	
VISCOSITY, KU - FREEZE THAW STABILITY	98	
OPACITY (CONTRAST RATIO)	.991	
WATER RESISTANCE	BLISTER, WRINKLE	

REMARKS..

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DISTRICT ADMINISTRATOR

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APPENDIX D

LABORATORY TESTS FOR TRAFFIC STRIPING TAPE

TEST METHODS USED IN EVALUATION OF
TRAFFIC STRIPING TAPE

TEST PERFORMED	FEDERAL SPEC.	ASTM	OTHER
Tensile Strength		D3759	

TEST RESULTS FOR REGIONAL TEST FACILITY
FOR CALENDAR YEAR: 1989

PAGE 1

**** TRAFFIC STRIPING TAPE ****

RTF I.D. NO.	SOURCE	PRODUCT NAME	DESCRIPTION	TYPE	COLOR	WIDTH INCHES	THICKNESS MILS	TENSILE STRENGTH PSI
STR 89-55	CATAPHOTE	CATATILE	EXTENDED WEAR	PERMANENT	WHITE	4	57	221
STR 89-56	CATAPHOTE	CATATILE	EXTENDED WEAR	PERMANENT	YELLOW	4	57	235
STR 89-62	CATAPHOTE	NICO-DUR		PERMANENT	WHITE	4	47	687
STR 89-54	CATAPHOTE	CATATILE	DETOUR GRADE	TEMPORARY R	WHITE	4	53	754
STR 89-61	CATAPHOTE	CATATILE	DETOUR GRADE	TEMPORARY R	YELLOW	4	55	721
STR 89-36	LINEAR DYNAMICS	PRISMOPLASTIX-I		PERMANENT	YELLOW	4	61	385
STR 89-37	LINEAR DYNAMICS	PRISMOPLASTIX-I		PERMANENT	WHITE	4	61	358
STR 89-38	LINEAR DYNAMICS	PRISMOLINE TRT		TEMPORARY R	WHITE	4	51	870
STR 89-39	LINEAR DYNAMICS	PRISMOLINE TRT		TEMPORARY R	YELLOW	4	49	811
STR 89-27	3-M	SCOTCHLANE 5161	CONST. GRADE	TEMPORARY NR	YELLOW	4	17	1590
STR 89-30	3-M	SCOTCHLANE 5160	CONST. GRADE	TEMPORARY NR	WHITE	4	17	1573
STR 89-28	3-M	SCOTCHLANE 5711	DETOUR GRADE	TEMPORARY R	YELLOW	4	41	799
STR 89-29	3-M	SCOTCHLANE 5710	DETOUR GRADE	TEMPORARY R	WHITE	4	41	817

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EXCEPTION REPORT FOR THE TEST OF
RTF TRAFFIC STRIPING TAPE(253)
DISTRICT 22

06-21-90

PROJECT NUMBER..MATLAB	DATE SAMPLED..04-11-90
LAB NUMBER.....22-533686	DATE TESTED...05-14-90
IDENT.....ST8927	QUANTITY..... 1 ROL
PURPOSE..SOURCE APPROVAL	SPEC CODE.....3
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS	
SOURCE...3M COMPANY	ST. PAUL, MN
REMARKS..	

ITEM NO..

TEST PROPERTY	VALUE	REMARKS
RTF I.D. NO.	STR 89-27	
SOURCE	3-M	
PRODUCT NAME	SCOTCHLANE 5161	
DESCRIPTION	CONST. GRADE	
TYPE	TEMPORARY NR	
COLOR	YELLOW	
WIDTH, INCHES	4	
THICKNESS, MILS	17	
TENSILE STRENGTH, PSI	1590	

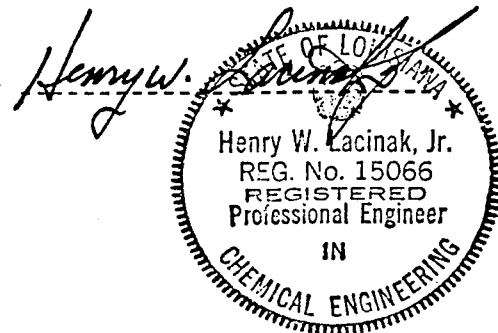
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DISTRICT ADMINISTRATOR

MATERIALS ENGINEER BY

RJ



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EXCEPTION REPORT FOR THE TEST OF
RTF TRAFFIC STRIPING TAPE(253)
DISTRICT 22

06-22-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533687
IDENT.....ST8928
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...3M COMPANY
REMARKS..
DATE SAMPLED..04-11-89
DATE TESTED...05-14-90
QUANTITY..... 1 ROL
SPEC CODE.....3
ST. PAUL, MN

ITEM NO..

TEST PROPERTY	VALUE	REMARKS
RTF I.D. NO.	STR 89-28	
SOURCE	3-M	
PRODUCT NAME	SCOTCHLANE 5711	
DESCRIPTION	DETOUR GRADE	
TYPE	TEMPORARY R	
COLOR	YELLOW	
WIDTH, INCHES	4	
THICKNESS, MILS	41	
TENSILE STRENGTH, PSI	799	

REMARKS..

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Henry W. Lacinak, Jr.
RJ



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EXCEPTION REPORT FOR THE TEST OF
RTF TRAFFIC STRIPING TAPE(253)
DISTRICT 22

06-25-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533688
IDENT.....ST8929
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...3M COMPANY
REMARKS..
DATE SAMPLED..04-11-89
DATE TESTED...05-14-90
QUANTITY..... 1 ROL
SPEC CODE.....3
ST. PAUL, MN

ITEM NO..

TEST PROPERTY	VALUE	REMARKS
RTF I.D. NO.	STR 89-29	
SOURCE	3-M	
PRODUCT NAME	SCOTCHLANE 5710	
DESCRIPTION	DETOUR GRADE	
TYPE	TEMPORARY R	
COLOR	WHITE	
WIDTH, INCHES	4	
THICKNESS, MILS	41	
TENSILE STRENGTH, PSI	817	

REMARKS..

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MATERIALS ENGINEER BY

Henry W. Lacinak, Jr.
STATE OF LOUISIANA
Henry W. Lacinak, Jr.
REG. No. 15066
REGISTERED
Professional Engineer
IN
CHEMICAL ENGINEERING

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
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EXCEPTION REPORT FOR THE TEST OF
RTF TRAFFIC STRIPING TAPE(253)
DISTRICT 22

06-21-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533689
IDENT.....ST8930
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...3M COMPANY
REMARKS..
DATE SAMPLED..04-11-89
DATE TESTED...05-14-90
QUANTITY..... 1 ROL
SPEC CODE.....3
ST. PAUL, MN

ITEM NO..

TEST PROPERTY	VALUE	REMARKS
RTF I.D. NO.	STR 89-30	
SOURCE	3-M	
PRODUCT NAME	SCOTCHLANE 5160	
DESCRIPTION	CONST. GRADE	
TYPE	TEMPORARY NR	
COLOR	WHITE	
WIDTH, INCHES	4	
THICKNESS, MILS	17	
TENSILE STRENGTH, PSI	1573	

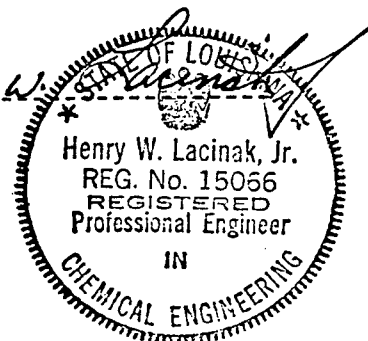
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RTF TRAFFIC STRIPING TAPE(253)
DISTRICT 22

06-21-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533690
IDENT.....ST8936
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...LINEAR DYNAMICS, INC.
REMARKS..
DATE SAMPLED..04-11-89
DATE TESTED...05-14-90
QUANTITY..... 1 ROL
SPEC CODE.....3
BALL GROUND, GA

ITEM NO..

TEST PROPERTY	VALUE	REMARKS
RTF I.D. NO.	STR 89-36	
SOURCE	LINEAR DYNAMICS	
PRODUCT NAME	PRISMOPLASTIX-I	
TYPE	PERMANENT	
COLOR	YELLOW	
WIDTH, INCHES	4	
THICKNESS, MILS	61	
TENSILE STRENGTH, PSI	385	

REMARKS..

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EXCEPTION REPORT FOR THE TEST OF
RTF TRAFFIC STRIPING TAPE(253)
DISTRICT 22

06-21-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533691
IDENT.....ST8937
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...LINEAR DYNAMICS, INC.
REMARKS..
DATE SAMPLED..04-11-89
DATE TESTED...05-14-90
QUANTITY..... 1 ROL
SPEC CODE.....3
BALL GROUND, GA

ITEM NO..

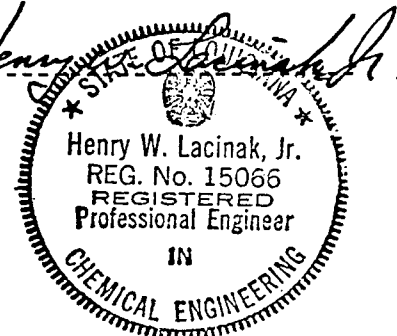
TEST PROPERTY	VALUE	REMARKS
RTF I.D. NO.	STR 89-37	
SOURCE	LINEAR DYNAMICS	
PRODUCT NAME	PRISMOPLASTIX-I	
TYPE	PERMANENT	
COLOR	WHITE	
WIDTH, INCHES	4	
THICKNESS, MILS	61	
TENSILE STRENGTH, PSI	358	

REMARKS..

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EXCEPTION REPORT FOR THE TEST OF
RTF TRAFFIC STRIPING TAPE(253)
DISTRICT 22

06-21-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533692
IDENT.....ST8938
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...LINEAR DYNAMICS, INC.
REMARKS..
DATE SAMPLED..04-11-89
DATE TESTED...05-14-90
QUANTITY.....1 ROL
SPEC CODE.....3
BALL GROUND, GA

ITEM NO..

TEST PROPERTY	VALUE	REMARKS
RTF I.D. NO.	STR 89-38	
SOURCE	LINEAR DYNAMICS	
PRODUCT NAME	PRISMOLINE TRT	
TYPE	TEMPORARY R	
COLOR	WHITE	
WIDTH, INCHES	4	
THICKNESS, MILS	51	
TENSILE STRENGTH, PSI	870	

REMARKS..

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MATERIALS ENGINEER BY

Henry W. Lacinak, Jr.
Henry W. Lacinak, Jr.
REG. No. 15066
REGISTERED
Professional Engineer
IN
CHEMICAL ENGINEERING

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
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RTF TRAFFIC STRIPING TAPE(253)
DISTRICT 22

06-21-90

PROJECT NUMBER..MATLAB	DATE SAMPLED..04-11-89
LAB NUMBER.....22-533693	DATE TESTED...05-14-90
IDENT.....ST8939	QUANTITY..... 1 ROL
PURPOSE..SOURCE APPROVAL	SPEC CODE.....3
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS	
SOURCE...LINEAR DYNAMICS, INC.	BALL GROUND, GA
REMARKS..	

ITEM NO..

TEST PROPERTY	VALUE	REMARKS
RTF I.D. NO.	STR 89-39	
SOURCE	LINEAR DYNAMICS	
PRODUCT NAME	PRISMOLINE TRT	
TYPE	TEMPORARY R	
COLOR	YELLOW	
WIDTH, INCHES	4	
THICKNESS, MILS	49	
TENSILE STRENGTH, PSI	811	

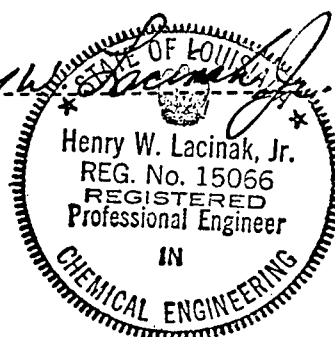
REMARKS..

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EXCEPTION REPORT FOR THE TEST OF
RTF TRAFFIC STRIPING TAPE(253)
DISTRICT 22

06-21-90

PROJECT NUMBER..MATLAB	DATE SAMPLED..04-11-89
LAB NUMBER.....22-533694	DATE TESTED...05-14-90
IDENT.....ST8954	QUANTITY..... 1 ROL
PURPOSE..SOURCE APPROVAL	SPEC CODE.....3
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS	
SOURCE...CATAPHOTE, INC.	JACKSON, MS
REMARKS..	

ITEM NO..

TEST PROPERTY	VALUE	REMARKS
RTF I.D. NO.	STR 89-54	
SOURCE	CATAPHOTE	
PRODUCT NAME	CATATILE	
DESCRIPTION	DETOUR GRADE	
TYPE	TEMPORARY R	
COLOR	WHITE	
WIDTH, INCHES	4	
THICKNESS, MILS	53	
TENSILE STRENGTH, PSI	754	

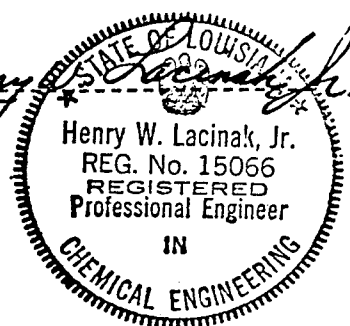
REMARKS..

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DISTRICT LAB ENGINEER
DISTRICT ADMINISTRATOR

MATERIALS ENGINEER BY

Henry W. Lacinak, Jr.
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DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
RTF TRAFFIC STRIPING TAPE(253)
DISTRICT 22

06-21-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533695
IDENT.....ST8955
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...CATAPHOTE, INC.
REMARKS..
DATE SAMPLED..04-11-89
DATE TESTED...05-14-90
QUANTITY..... 1 ROL
SPEC CODE.....3
JACKSON, MS

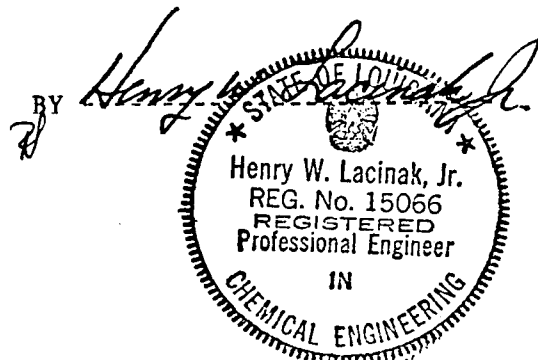
ITEM NO..

TEST PROPERTY	VALUE	REMARKS
RTF I.D. NO.	STR 89-55	
SOURCE	CATAPHOTE	
PRODUCT NAME	CATATILE	
DESCRIPTION	EXTENDED WEAR	
TYPE	PERMANENT	
COLOR	WHITE	
WIDTH, INCHES	4	
THICKNESS, MILS	57	
TENSILE STRENGTH, PSI	221	

REMARKS..

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MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
RTF TRAFFIC STRIPING TAPE(253)
DISTRICT 22

06-21-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533696
IDENT.....ST8956
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...CATAPHOTE, INC.
REMARKS..
DATE SAMPLED..04-11-89
DATE TESTED...05-14-90
QUANTITY.....1 ROL
SPEC CODE.....3
JACKSON, MS

ITEM NO..

TEST PROPERTY	VALUE	REMARKS
RTF I.D. NO.	STR 89-56	
SOURCE	CATAPHOTE	
PRODUCT NAME	CATATILE	
DESCRIPTION	EXTENDED WEAR	
TYPE	PERMANENT	
COLOR	YELLOW	
WIDTH, INCHES	4	
THICKNESS, MILS	57	
TENSILE STRENGTH, PSI	235	

REMARKS..

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DISTRICT ADMINISTRATOR

MATERIALS ENGINEER BY

Henry W. Lacinak, Jr.
7
STATE OF LOUISIANA
Henry W. Lacinak, Jr.
REG. No. 15066
REGISTERED
Professional Engineer
IN
CHEMICAL ENGINEERING

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
MATERIAL TESTING SYSTEM
EXCEPTION REPORT FOR THE TEST OF
RTF TRAFFIC STRIPING TAPE(253)
DISTRICT 22

06-21-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533697
IDENT.....ST8961
PURPOSE..SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...CATAPHOTE, INC.
REMARKS..
DATE SAMPLED..04-11-89
DATE TESTED...05-14-90
QUANTITY..... 1 ROL
SPEC CODE.....3
JACKSON, MS

ITEM NO..

TEST PROPERTY	VALUE	REMARKS
RTF I.D. NO.	STR 89-61	
SOURCE	CATAPHOTE	
PRODUCT NAME	CATATILE	
DESCRIPTION	DETOUR GRADE	
TYPE	TEMPORARY R	
COLOR	YELLOW	
WIDTH, INCHES	4	
THICKNESS, MILS	55	
TENSILE STRENGTH, PSI	721	

REMARKS..

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DISTRICT LAB ENGINEER
DISTRICT ADMINISTRATOR

MATERIALS ENGINEER BY

Henry W. Lacinak, Jr.
Henry W. Lacinak, Jr.
REG. No. 15066
REGISTERED
Professional Engineer
IN
CHEMICAL ENGINEERING

STATE OF LOUISIANA
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DISTRICT 22

06-21-90

PROJECT NUMBER..MATLAB
LAB NUMBER.....22-533698
IDENT.....ST8962
PURPOSE...SOURCE APPROVAL
SUBMITTED BY..SASHTO REGIONAL TEST FACILITY, JACKSON, MS
SOURCE...CATAPHOTE, INC.
REMARKS..
DATE SAMPLED..04-11-89
DATE TESTED...05-14-90
QUANTITY..... 1 ROL
SPEC CODE.....3
JACKSON, MS

ITEM NO..

TEST PROPERTY	VALUE	REMARKS
RTF I.D. NO.	STR 89-62	
SOURCE	CATAPHOTE	
PRODUCT NAME	NICO-DUR	
TYPE	PERMANENT	
COLOR	WHITE	
WIDTH, INCHES	4	
THICKNESS, MILS	47	
TENSILE STRENGTH, PSI	687	

REMARKS..

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DISTRICT ADMINISTRATOR

MATERIALS ENGINEER BY

Henry W. Lacinak, Jr.
Henry W. Lacinak, Jr.
REG. No. 15066
REGISTERED
Professional Engineer
IN
CHEMICAL ENGINEERING