

**COATING, EPOXY INTERMEDIATE COAT,
SUPPORT SECTIONS**

THIS ITEM SHALL CONSIST OF THE APPLICATION OF ONE (1) COAT OF EPOXY TO SUPPORT SECTIONS. THE TOTAL DRY FILM THICKNESS OF THIS COAT SHALL NOT BE LESS THAN SIX (6.0) MILS. IF MORE THAN ONE PASS IS NECESSARY TO OBTAIN THE REQUIRED THICKNESS, THAT COST SHALL BE BORNE BY THE CONTRACTOR. THINNING OF THE EPOXY MATERIAL IS STRICTLY PROHIBITED. MATERIAL NOT CAPABLE OF BEING APPLIED AS SPECIFIED SHALL NOT BE USED. THE COLOR OF THIS COAT SHALL BE LIGHT GREY. WHEN THE AVERAGE DRY FILM THICKNESS OF THIS COAT OVER THE ENTIRE SUPPORT SECTION IS LESS THAN THE SPECIFIED SIX (6.0) MILS, BUT IS AT LEAST (5.0) MILS, THE CONTRACT PRICE FOR THIS ITEM SHALL BE REDUCED IN DIRECT PROPORTION TO THE PERCENT DEFICIENCY OF COATING UP TO 16-2/3%. IF THE DEFICIENCY OF COATING IS MORE THAN 16-2/3%, (I.E. THE AVERAGE DRY FILM THICKNESS IS LESS THAN 5.0 MILS), THE WORK FOR THIS ITEM SHALL BE CONSIDERED UNSATISFACTORY AND SHALL BE RECOATED AT THE FULL EXPENSE OF THE CONTRACTOR, INCLUDING ALL LABOR, EQUIPMENT AND MATERIAL. THE EPOXY INTERMEDIATE COAT CHOSEN BY THE CONTRACTOR SHALL BE ONE OF THE FOLLOWING TWO-COMPONENT COMPOSITIONS CONFORMING TO ITS LISTED PROPERTIES:

AMERLOCK 400:
% SOLIDS BY VOLUME: 83% +/- 2%
POT LIFE: 2-1/2 HRS. @ 70 DEGREES F.
DRYING TIME: 20 HRS. @ 70 DEGREES F.

GLID-GUARD EPOXY CHEMICAL RESISTANT FINISH
NO. 5240 SERIES:
% SOLIDS BY VOLUME: 44.7% +/- 2%
POT LIFE: 10 HRS. @ 80 DEGREES F.
TO HANDLE
DRYING TIME: 4 HRS. @ 77 DEGREES F.

VISCOSITY: 68-72 KU
% SOLIDS BY WEIGHT: 60% +/- 2%

MCR 4361 HIGH BUILD EPOXY (OFF-WHITE):
% SOLIDS BY VOLUME: 49.4% +/- 2%
POT LIFE: 30 HRS. @ 50-60 DEGREES F.
16 HRS. @ 80-100 DEGREES F.
DRYING TIME: 1-2 HRS. @ 60-80 DEGREES F.

MARK-60 ULTRAPOX:
% SOLIDS BY WEIGHT: 52% +/- 5%
POT LIFE: 6 HRS. @ 75 DEGREES F.
DRYING TIME: 2-3 HRS. INITIAL SET @ 75 DEGREES F.
VISCOSITY: 300-500 CPS @ 75 DEGREES F.

HI-SOLIDS CATALYZED EPOXY:
% SOLIDS BY VOLUME: 61% +/- 2% (PURE WHITE)
% SOLIDS BY WEIGHT: 77% +/- 2% (PURE WHITE)
POT LIFE: 5 HRS. @ 77 DEGREES F.
DRYING TIME: 1 HR. TO TOUCH,
4 HRS. TACK FREE,
6 HRS. TO RECOAT @ 77 DEGREES F. & 50% R.H.

AT LEAST 24 HOURS BUT NO MORE THAN THREE (3) DAYS SHALL ELAPSE AFTER THE APPLICATION OF THE EPOXY PRIME COAT AND BEFORE THE APPLICATION OF THE EPOXY INTERMEDIATE COAT. SURFACES SHALL IN ALL CASES BE CLEAN BEFORE THE INTERMEDIATE COAT IS APPLIED. FOR NEW SUPPORT SECTIONS, THIS INTERMEDIATE COAT SHALL BE APPLIED AT THE PROJECT SITE. VERIFICATION BY THE MANUFACTURER FOR THE INTERMEDIATE COAT PROCEDURE WILL BE REQUIRED. CAREFUL HANDLING AND STORAGE WILL BE REQUIRED TO PREVENT ANY SCRAPING, MARRING OR OTHER SURFACE DAMAGE TO THE INTERMEDIATE COAT.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, HANDLING COST AND MATERIAL NECESSARY TO ACCOMPLISH THIS ITEM OF WORK. THIS INTERMEDIATE COAT SHALL BE MANUFACTURED BY THE SAME COMPANY SUPPLYING THE PRIME AND TOP COATS. A PROPERLY CALIBRATED DRY FILM THICKNESS INSTRUMENT WILL BE USED TO CHECK THE COATING.

BASIS OF PAYMENT WILL BE AS FOLLOWS:

ITEM SPECIAL- COATING, EPOXY INTERMEDIATE COAT, SUPPORT SECTIONS AT CONTRACT BID PRICE PER EACH MAJOR SUPPORT SECTION.

**COATING, URETHANE TOP COAT,
SUPPORT SECTIONS**

THIS ITEM SHALL CONSIST OF THE APPLICATION OF ONE (1) COAT OF URETHANE TO SUPPORT SECTIONS. THE TOTAL DRY FILM THICKNESS OF THIS COAT SHALL NOT BE LESS THAN ONE AND ONE-HALF (1.5) MILS. IF MORE THAN ONE PASS IS NECESSARY TO OBTAIN THE REQUIRED THICKNESS, THAT COST SHALL BE BORNE BY THE CONTRACTOR. THINNING OF THE URETHANE MATERIAL IS STRICTLY PROHIBITED. MATERIAL NOT CAPABLE OF BEING APPLIED AS SPECIFIED SHALL NOT BE USED. THE COLOR OF THIS COAT SHALL BE MEDIUM GREY.

WHEN THE AVERAGE DRY FILM THICKNESS OF THIS COAT OVER THE ENTIRE SUPPORT SECTION IS LESS THAN THE SPECIFIED ONE AND ONE-HALF (1.5) MILS BUT IS AT LEAST ONE (1.0) MIL, THE CONTRACT PRICE FOR THIS ITEM SHALL BE REDUCED IN DIRECT PROPORTION TO THE PERCENT DEFICIENCY OF COATING UP TO 33-1/3%. IF THE DEFICIENCY OF COATING IS MORE THAN 33-1/3%, (I.E. THE AVERAGE DRY FILM THICKNESS IS LESS THAN 1.0 MIL), THE WORK FOR THIS ITEM SHALL CONSIDERED UNSATISFACTORY AND SHALL BE RECOATED AT THE FULL EXPENSE OF THE CONTRACTOR, INCLUDING ALL LABOR, EQUIPMENT AND MATERIAL. THE URETHANE TOP COAT CHOSEN BY THE CONTRACTOR SHALL BE ONE OF THE FOLLOWING MATERIALS CONFORMING TO ITS LISTED PROPERTIES:

AMERCOAT 450 HS:
% SOLIDS BY VOLUME: 66% +/- 3%
POT LIFE: 4 HRS. @ 70 DEGREES F.
DRYING TIME: 8 HRS. @ 70 DEGREES F.
DRY-THROUGH

GLID-THANE ONE POLYURETHANE COATINGS NO. 6100 SERIES:
% SOLIDS BY VOLUME: 39% +/- 2%
DRYING TIME: 8-12 HRS. @ 77 DEGREES F.
TO HANDLE
VISCOSITY: 100-250 CPS
% SOLIDS BY WEIGHT: 52-56%

HYTHANE 4610 ALIPHATIC POLYURETHANE:
% SOLIDS BY VOLUME: 43.4% +/- 2%
POT LIFE: 12 HRS. @ 75 DEGREES F.
DRYING TIME: 3/4 HRS. TO TOUCH @ 75 DEGREES F.

MARK-73 (ULTRA-KOTE):
% SOLIDS BY VOLUME: 52.5% +/- 2%
POT LIFE: 8 HRS. @ 75 DEGREES F.
DRYING TIME: 4-5 HRS. @ 75 DEGREES F.
TACK FREE
VISCOSITY: 70-75 KU @ 75 DEGREES F.
% SOLIDS BY WEIGHT: 55% +/- 2%

HI-BILD ALIPHATIC POLYURETHANE ENAMEL:
% SOLIDS BY VOLUME: 40% +/- 2% (CATALYZED)
% SOLIDS BY WEIGHT: 48% +/- 2%
POT LIFE: 6 HRS. @ 77 DEGREES F.
DRYING TIME: 30 MIN. TO TOUCH,
4 HRS. TACK FREE,
18 HRS. MINIMUM, 72 HRS. MAXIMUM TO RECOAT.

AT LEAST 24 HOURS BUT NO MORE THAN THREE (3) DAYS SHALL ELAPSE AFTER THE APPLICATION OF THE EPOXY INTERMEDIATE COAT AND BEFORE THE APPLICATION OF THE URETHANE TOP COAT. SURFACES SHALL IN ALL CASES BE CLEAN BEFORE THE TOP COAT IS APPLIED.

FOR NEW SUPPORT SECTIONS, THIS TOP COAT SHALL BE APPLIED AT THE PROJECT SITE. VERIFICATION BY THE MANUFACTURER FOR TOP COAT PROCEDURE WILL BE REQUIRED. CAREFUL HANDLING AND STORAGE WILL BE REQUIRED TO PREVENT ANY SCRAPING, MARRING OR OTHER SURFACE DAMAGE TO THE TOP COAT.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, HANDLING COST AND MATERIALS NECESSARY TO ACCOMPLISH THIS ITEM OF WORK. THIS TOP COAT SHALL BE MANUFACTURED BY THE SAME COMPANY SUPPLYING THE PRIME AND INTERMEDIATE COATS. A PROPERLY CALIBRATED, DRY FILM THICKNESS INSTRUMENT WILL BE USED TO CHECK THE COATING.

BASIS OF PAYMENT WILL BE AS FOLLOWS:

ITEM SPECIAL- COATING, URETHANE TOP COAT, SUPPORT SECTIONS AT CONTRACT BID PRICE PER EACH MAJOR SUPPORT SECTION.

PREQUALIFICATION

PRIOR TO USE, THE CONTRACTOR SHALL SUBMIT TO THE DIRECTOR COPIES OF THE MANUFACTURER'S CERTIFIED TEST DATA SHOWING THAT THE MATERIAL COMPLIES WITH THE REQUIREMENTS OF THIS SPECIFICATION. THE TEST DATA SHALL INCLUDE THE BRAND NAME OF THE PAINT, NAME OF MANUFACTURER, NUMBER OF THE LOT TESTED AND DATE OF MANUFACTURE. WHEN THE PAINT HAS BEEN APPROVED BY THE DIRECTOR, FURTHER PERFORMANCE TESTING BY THE MANUFACTURER WILL NOT BE REQUIRED UNLESS THE FORMULATION OR MANUFACTURING PROCESS HAS BEEN CHANGED, IN WHICH CASE NEW CERTIFIED TEST RESULTS WILL BE REQUIRED.

ACCEPTANCE

THE MANUFACTURER SHALL SUBMIT CERTIFIED TEST DATA IN ACCORDANCE WITH THE REQUIREMENTS OF THIS SPECIFICATION. THE STATE RESERVES THE RIGHT TO SAMPLE AND TEST DELIVERED LOTS FOR COMPLIANCE.

LOCATIONS

THE FOLLOWING SUMMARY OF MAJOR SUPPORT SECTIONS TO HAVE A PROTECTIVE COATING APPLIED IS NOTED BELOW:

SUPPORT NO.	MAJOR SECTIONS
10	2 END FRAMES
15	2 END FRAMES
* 20	2 END FRAMES
25	1 POLE, 1 ARM
30	1 POLE, 1 ARM
35	2 END FRAMES
40	1 POLE, 1 ARM
45	2 END FRAMES
50	2 END FRAMES
55	1 POLE, 1 ARM
60	1 POLE, 1 ARM
65	1 POLE, 1 ARM
70	2 END FRAMES
75	2 END FRAMES
* 85	1 POLE, 1 ARM
90	1 POLE, 1 ARM
100	1 POLE, 1 ARM
105	1 POLE, 1 ARM
* 110	1 POLE, 1 ARM
115	1 POLE, 1 ARM
* 120	1 POLE, 1 ARM
* 125	1 POLE, 1 ARM
* 130	1 POLE, 1 ARM
135	1 POLE, 1 ARM
140	2 END FRAMES
145	1 POLE, 1 ARM
* 245	1 POLE, 1 ARM

*EXISTING SIGN SUPPORT

CALC BY: SJK
DATE: 5/92
CHKD BY: HJT
DATE: 5/92

LAKE COUNTY
LAK-90/271-1.88/0.00

OHIO
FHWA REGION 5
113
105

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM SPECIAL - SURFACE PREPARATION, EXISTING SUPPORT SECTIONS	14 EA.
ITEM SPECIAL - SURFACE PREPARATION, NEW SUPPORT SECTIONS	40 EA.
ITEM SPECIAL - COATING, EPOXY PRIME COAT, SUPPORT SECTIONS	54 EA.
ITEM SPECIAL - COATING, EPOXY INTERMEDIATE COAT, SUPPORT SECTIONS	54 EA.
ITEM SPECIAL - COATING, URETHANE TOP COAT, SUPPORT SECTIONS	54 EA.

ITEM 862-RAISED PAVEMENT MARKERS

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO PLACE RAISED PAVEMENT MARKERS AS PART OF THIS PROJECT. THE CONTRACTOR SHALL NOT BE PERMITTED TO CLOSE ADDITIONAL LANES AS A SEPERATE OPERATION TO INSTALL RAISED PAVEMENT MARKERS. INSTALLATION SHALL COINCIDE WITH FINAL PAVEMENT MARKING APPLICATIONS. LOCATIONS OF RAISED PAVEMENT MARKERS SHALL BE AS PER STANDARD CONSTRUCTION DRAWINGS TC-65.10 AND TC-65.11.

ITEM 862-RAISED PAVEMENT MARKERS

COST PARTICIPATION I	286 EA.
● COST PARTICIPATION II	901 EA.
▲ COST PARTICIPATION III	477 EA.