

MODIFIED BY EI 86-008
EFFECTIVE 2/18/86

ENGINEERING INSTRUCTION

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

SUPERSEDED BY EI 88-036
EFFECTIVE 10/14/88

SUBJECT: COAL TAR EPOXY PROTECTIVE COATING
FOR PAINTING EXISTING BRIDGES

Subject Code: 7.27-1-570

Distribution:

31 Main Office 33 Regions 34 Special

Code: EI 84-22

Date: 4/17/84

APPROVED:



M. TEGZA, Director, Final Plan Review Bureau

Revises specification
distributed by EI84-8

The specification for Item 18570.73 - Coal Tar Epoxy Paint System -
CLEANING AND PAINTING, that was distributed with EI 84-8, has been
revised.

Attached is the revised specification as follows:

Item 18570.74XXXX - COAL TAR EPOXY PAINT SYSTEM - CLEANING AND PAINTING.

The pay item is serialized on the last four digits.

This specification is a Main Office Insert and will take effect for all
projects beginning with the Letting of July 19, 1984.

PREL.	FINAL
DESIGN	LANDSCAPE
RECEIVED	
FACILITIES DESIGN DIVISION	
APR 23 1984	
CIRC.	FILE

ITEM 18570.74 COAL TAR EPOXY PAINT SYSTEM - CLEANING AND PAINTING

DESCRIPTION: This work shall consist of cleaning designated structural steel surfaces and painting them with two coats of coal tar epoxy paint.

MATERIALS: All materials and equipment for cleaning and painting shall meet the requirements of §740-01, Painting Metal Structures, with the following modifications:

- A. First Coat. The primer or first coat shall be a coal tar epoxy paint conforming to the requirements of SSPC Paint Specification No. 16. The color shall be black (Note 1). Coal tar epoxy paint shall be applied at a minimum wet film thickness of 12 mils, so as to produce a minimum dry film thickness of 8 mils.
- B. Second Coat. The intermediate or second coat shall be a coal tar epoxy paint identical to the prime coat, except the color shall be dark red (Note 1). The second coat shall be applied at a minimum dry film thickness of 8 mils.

Note 1: The first and second coats of coal tar epoxy paint are interchangeable. If directed by the Engineer the color of the first coat shall be red and the color of the second coat shall be black.

CONSTRUCTION DETAILS:

- A. Cleaning: All designated surfaces shall be cleaned to bare steel in accordance with §740-01, Surface Preparation, F. Commercial Blast Cleaning. The surface after cleaning shall be defined by SSPC-Vis 1, Pictorial Standards BSA2, CSA2, or DSA2, as applicable.
- B. Painting: The requirements of §740-01 shall apply together with the following:
 1. All designated steel surfaces shall be painted with a prime and intermediate coat of coal tar epoxy paint.
 2. Cleaned bare metal surfaces shall have all blasting products removed and shall be painted one coat of primer within the same working day at the completion of the blasting operations and before the condition known as flash-rusting occurs. Surfaces receiving primer shall be absolutely clean and dry prior to primer application.

March 27, 1984
REV. 4/16/84
EE 1-71

3. The second coat shall be applied in accordance with the coating manufacturer's recommendation for re-coating, or in the absence of such instructions applied after the primer has dried to the extent that it cannot be shoved, dented, abraded, or dislodged when struck with a rubber mallet. To minimize intercoat adhesion problems in no case shall more than 72 hours elapse before the application of the second coat, or in conditions of warm weather when the ambient temperature is 80°F or higher, 24 hours. The Engineer shall be the sole determiner of hot weather conditions.
4. No paint shall be applied unless the receiving surface is absolutely dry. No paint shall be applied either to bare steel, or a previously applied coat, if the receiving surface temperature is less than 50°F, or greater than 125°F. No paint shall be applied when the ambient air temperature is below 50° F unless it can be expected that the average ambient air temperature will be 50°F or greater for a five-day period subsequent to the application of any coat. In no case shall paint be applied if, in the opinion of the Engineer, atmospheric conditions are such, or will change to be such, as to cause unsatisfactory results.
5. All paint shall be proportioned and thoroughly mixed with mechanical mixers in accordance with the manufacturer's recommendations.
6. Thinning of paint to facilitate application may be allowed, if approved by and performed in the presence of the Engineer. The type and quantity of thinner shall be in compliance with the paint manufacturers recommendations.

If thinner is added the applied wet film thickness shall be adjusted to obtain the minimum specified dry film thickness of 8 mils per coat.

Unauthorized use of thinners shall result in repriming the surface in conformance with this specification to the satisfaction of the Engineer at the Contractors expense.

7. The dry film thickness of the two coats of paint shall be determined in accordance with SSPC-PA2, Paint Application Specification No. 2, Measurement of Dry Paint Thickness with Magnetic Gage. A total paint film thickness of 16 mils will be required. Should the verification procedure indicate less than 16 mils the Contractor shall repaint the surface to obtain the specified film thickness. All recoating work done for this purpose shall be performed as directed by the Engineer, and at no additional cost to the State.

METHOD OF MEASUREMENT: Payment will be made at the lump sum price bid.

BASIS OF PAYMENT: The lump sum price bid shall include the cost of all labor, materials and equipment necessary to complete the work. Progress payments will be made based upon the percent of designated structural steel cleaned, primed and painted with the intermediate coat. The percentage shall be computed as the ratio of length of designated structural steel cleaned, primed and painted to the total length of structural steel so designated.

March 27, 1984

EI 84-8