

- ITEM 18570.8611 M MAINTENANCE CLEANING AND EPOXY PRIMING
ITEM 18570.8612 M MAINTENANCE CLEANING AND EPOXY PRIMING (SPRAY PROHIBITED)

DESCRIPTION

This work shall consist of cleaning and priming in-service structural steel surfaces where indicated by the Contract documents or where ordered by the Engineer.

MATERIAL

- 1. Primer and Thinner.** Paint and thinner shall be selected from the Department's Approved List, "PAINTS FOR STRUCTURAL STEEL, A. PRIMER PAINT AND THINNERS." No substitutions will be allowed.

All primer and other coats of paint used on any one structure shall be produced by the same manufacturer. Each single paint coat shall be a color different from the others.

- 2. Abrasive for Blast Cleaning.** Abrasive material for blast cleaning shall be selected by the Contractor. Silica sand and other types of non-metallic abrasive containing more than 1.0% free silica, by weight, will not be allowed.

- 3. Basis of Acceptance.**

Acceptance of primer paint and thinner materials will be based on the appearance of the manufacturer's name, and the product name, on the Department's Approved List.

Abrasive material for blast cleaning will be approved by the Engineer.

Only primer and thinner arriving at the work site in new, unopened containers shall be used.

Containers of paint shall be labeled with the manufacturer's name, product name, component part, batch number, date of manufacture and shelf life date. Paint in containers having expired shelf life dates shall be immediately removed from the work site and not used.

Containers of thinner shall be labeled with the manufacturer's name and the product name. If an approved generic thinner is supplied it shall be clearly identified as reagent grade.

CONSTRUCTION DETAILS

The requirements of Standard Specification §570-3.02 shall apply with the following modifications:

- 1. Manufacturers Instructions.** At least 5 working days prior to the start of work the Contractor shall provide the Engineer with one copy of the paint manufacturer's current technical data sheets for the primer furnished. Instructions, suggestions and precautions

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contained in the data sheets shall be followed to the extent that they do not contradict the provisions of this specification.

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2. **Atmospheric Conditions.** No work, surface preparation (cleaning) or paint application shall be performed unless all the following conditions are met:
 - a. The receiving surface shall be clean and absolutely dry.
 - b. The receiving surface temperature and ambient air temperature shall be as recommended by the paint manufacturer, except that in no case shall cleaning or painting work be performed when surface and ambient temperatures are less than 4.5°C or greater than 38°C.
 - c. The temperature of the paint shall be as recommended by the paint manufacturer, except that in no case shall paint be applied when the paint material temperature is less than 4.5°C.
 - d. The receiving surface temperature shall be at least 3°C above the dew point.
 - e. The relative humidity shall be less than 85%.
 3. **Mixing.** Paint shall be proportioned and thoroughly mixed with mechanical mixers in accordance with the paint manufacturer's recommendations.
 4. **Thinning.** Primer may be thinned only if recommended by the manufacturer, done in strict compliance with the manufacturer's instructions, approved by the Engineer and mixed in the presence of the Engineer.
 5. **Paint Application.** Paint may be applied using brush, roller or spray methods, unless spray painting is prohibited by the Contract Documents.

When spray painting is prohibited paint shall be applied using brushes or rollers only.

Complete protection from paint spatter, spillage, overspray, wind blown paint, or similar releases of paint shall be provided. Covers, tarps, mesh, and similar materials shall be placed around the work area to protect public and private property, pedestrian, vehicular, marine or other traffic, all portions of the bridge, highway appurtenances, waterways, and similar surrounding areas and property, upon, beneath, or adjacent to the structure.

6. **Film Thickness.** Primer shall be applied in sufficient quantity so as to produce a minimum dry film thickness of 100 µm.

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The dry film thickness shall be determined in accordance with SSPC-PA2, Paint Application Specification No. 2 - Measurement of Dry Film Thickness with Magnetic Gages, using Type 2 fixed probe magnetic gages, equipped with a digital readout display. The Contractor shall supply all the equipment required by Standard Specification §740-01 as well as two fixed probe magnetic gages. No work shall be done until the required equipment is supplied.

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7. **Recoating and Overcoating.** Areas failing to meet the specified minimum dry film thickness shall be overcoated with the same type of primer to produce at least the total dry film thickness required. Primer applied containing unauthorized thinners, primer applied to contaminated surfaces, and primer applied contrary to this specification shall result in the recleaning and repriming of the surface. The work of recleaning, repainting or overcoating, if required, shall be done by the Contractor to the satisfaction of the Engineer at no additional cost to the State. Primer used for recoating and overcoating shall be tinted to slightly color contrast with the underlying coating.
 8. **Schedule.** Primer shall be applied within the same day as the cleaning operations and before flash rusting occurs to the cleaned surface. Failure to apply primer in accordance with this schedule shall result in recleaning the surface in accordance with this specification, at no additional cost to the State.
 9. **Material Storage.** Primer in storage shall be protected from damage and maintained between 4.5°C and 32°C. Primer not used before the expiration date shown on the containers shall be immediately removed from the project site.

METHOD OF MEASUREMENT

Payment shall 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. The cost of providing protection against damage during paint application shall be included in the price bid. Payment for the containment of dust and paint waste generated by blast cleaning work will be paid for under other items. Progress payments will be made based on the percentage of the structure cleaned and primed in accordance with this specification. The percentage shall be computed as the ratio of the length of structure cleaned and primed to the total length of structure.

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Payment will be made under:

<u>Item No</u>	<u>Item</u>	<u>Pay Unit</u>
18570.8611 M	Maintenance Cleaning and Epoxy Priming	Lump Sum (for each Structure)
18570.8612 M	Maintenance Cleaning and Epoxy Priming (Spray Prohibited)	Lump Sum (for each Structure)

Note: nn denotes serialized pay item. See §101-53.

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