



NEPOVERCOAT Qualified Products List M

for Protective Coatings for
MAINTENANCE OVERCOATING of Previously Painted Existing Steel Bridges

| Coating System No. | Coats | COATING SYSTEMS TESTED AND ACCEPTED | Manuf'r Coating | | Manufr | QPL |
|--|-------|---|----------------------|---------|------------|-------------------|
| | | | DFT (min/max) mil | micron | VOC g/L | Accepted Dates |
| NEPOVERCOAT QPL LIST M | | | | | | |
| M1-99 | (1A) | AMERON INTERNATIONAL | | | | from |
| | P | VyGuard 513F108 (M202) moisture cure urethane | 2-3 | 50-75 | 314 | 5/7/03 |
| | I | ---- | --- | --- | --- | until |
| | T | V41 Series (M222) semi-gloss urethane topcoat | 3-6 | 75-150 | 281 | (note 8) |
| M2-99 | (2B) | AMERON INTERNATIONAL | | | | from |
| | P | VyGuard 17F118 (M50) alkyd primer | 6-8 | 150-200 | 136 | 5/7/03 |
| | I | ---- | --- | --- | --- | until |
| | T | Amercoat 220 WB acrylic topcoat | 2 | 50 | 180 | (note 8) |
| <u>Note:</u> In testing this product took days to cure. | | | | | | |
| M3-99 | (6F) | CARBOLINE COMPANY | | | | from |
| | P | Rust Bond HB (Carboguard 954 HB) 100% solids epoxy | 5 | 125 | 206 | 5/7/03 |
| | I | Rust Bond HB (Carboguard 954 HB) 100% solids epoxy | 3 | 75 | 206 | until |
| | T | Subsil 30 HS (Carbocoat 30) 30% silicone alkyd | 2 | 50 | 305 | (note 8) |
| M4-99 | (8H) | INTERNATIONAL PAINT INC | | | | from |
| | P | Interthane 97 Aluminum moisture cure urethane primer | 2-3 | 50-75 | 318 | 5/7/03 |
| | I | Interthane 45 MIO moisture cure urethane intermediate | 3 | 75 | 333 | until |
| | T | Interthane 710 moisture cure urethane topcoat | 3 | 75 | 367 | (note 8) |
| M5-99 | (10K) | RUST-OLEUM CORPORATION | | | | from |
| | P | Rust-O-Thane 6780 zinc MIO moisture cure urethane | 2-3 | 50-75 | 330 | 5/7/03 |
| | I | ----- | --- | --- | --- | until |
| | T | 9800 DTM Urethane mastic | 3-5 | 75-125 | < 340 | (note 8) |
| M6-99 | (11L) | RUST-OLEUM CORPORATION | | | | from |
| | P | Rust-O-Crylic 5700 (Noxyde Plus) elastomeric mastic acrylic | 10 | 250 | 2 | 5/7/03 |
| | I | ----- | --- | --- | --- | until |
| | T | Rust-O-Crylic 5700 (Noxyde Plus) elastomeric mastic acrylic | 10 | 250 | 2 | (note 8) |
| <u>Note:</u> In testing this product was difficult to apply with brush & roller and left pronounced brush & roller marks after drying. | | | | | | |
| M7-99 | (12M) | SHERWIN WILLIAMS COMPANY | | | | from |
| | P | Corothane I Mastic MIO moisture cure urethane | 2.5-3.5 | 62-88 | < 340 | 5/7/03 |
| | I | ----- | --- | --- | --- | until |
| | T | Corothane I Ironox A moisture cure urethane | 2.5-3.5 | 62-88 | < 340 | (note 8) |

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|-------------------------------|-------|--|---|----------------------|--------------------------|
| NEPOVERCOAT QPL LIST M | | | | | |
| M8-99 | (13N) | WASSER HIGH-TECH COATINGS | | | from |
| | P | MC-Mio Aluminum MIO moisture cure urethane | 1.5-2 | 38-50 < 420 | 5/7/03 |
| | I | MC-Ferromastic MIO moisture cure urethane | 3-5 | 75-125 | until |
| | T | MC-Ferrox A MIO moisture cure urethane | 2.5-3.5 | 62-88 < 340 | (note 8) |

NOTES:

- 1 NEPCOAT is the NORTHEAST PROTECTIVE COATING COMMITTEE of CT, ME, MA, NH, NJ, NY, PA, RI, VT
 - 2 NEPOVERCOAT is a three-year field testing program of the NEPCOAT committee for qualifying and accepting coating products for maintenance overcoating previously painted existing steel bridges. Corrosion Control Consultants & Labs, Inc. conducted the testing program, including surface preparation, coating application, and performance evaluations. The States provided salvage steel beams for testing at the following sites: Farmington, ME, Scarborough, ME, New Haven, CT, and New Castle, PA.
 - 3 Each product was applied to these surfaces: (a) intact existing coating; (b) surfaces hand tool cleaned (SP2) with chisel, wire brush, and scraper; (c) surfaces power tool cleaned (SP3) with needle gun, roto-peen, 3M Scotch-Brite™ Clean and Strip disk sander; (d) surfaces cleaned to SP11 condition with roto-peen; and (e) chloride-contaminated pre-rusted metal bar welded to the test beam and cleaned half to SP2 and half to SP3. All surfaces were first power washed at 3,500 psi with a rotating zero-degree nozzle and offset 4-6 inches from the surface. Each test panel was scribed (surface f). During the winter months all test patches were sprayed with 1% salt water. A roof shelter was built over half of the test panels.
 - 4 All coatings were applied by brush and roller (no spray) and according to manufacturer's recommendations.
 - 5 (Mx-99) products comply with NEPOVERCOAT 99 Testing Program (5/19/99) & Acceptance Criteria (4/17/03).
 - 6 DFT and VOC values are from the manufacturer. The NEPCOAT max limit is 420 g/L (3.5 lb/gal). Individual state requirements for VOC limits may differ.
 - 7 Any change in formulation of the product from that tested will result in removal of the product from the QPL.
 - 8 The term of QPL acceptance is provisional pending future review of performance.
- Key P= Primer I= Intermediate T= Topcoat WB= Water based DTM= Direct to metal MIO= Micaceous iron oxide

ACCEPTANCE CRITERIA:

- 1 The acceptance criteria included the average results from all four state sites (except as noted) and these requirements:
 - that surfaces (a)(b)(c)(d)(f) receive a (min.) rating of 9 out of 10 (Farmington, ME site excluded from (a)(b)(c)(f));
 - for surface (d) only the sheltered panels were included;
 - that the power tool side of surface (e) receive a (min.) rating of 6.5 out of 10 (New Castle, PA site excluded).
 The performance ratings came from a CCC&L rating system. See note 3 above for description of surfaces.
- 2 The suitability of applying the coating by brush and roller was noted but not required for acceptance.
- 3 The final appearance was noted. Systems varied on gloss and color retention, and presence of brush and roller marks.

COMMENTS:

- 1 It is important to properly evaluate the condition of the existing coating to determine suitability for overcoating. See the reference SSPC-TU 3, Overcoating.
- 2 Power washing is suggested. Clean surfaces of chloride contaminants. Test for chlorides following surface preparation.
- 3 Coatings performed better with greater surface preparation (e.g. SP11 > SP3). SP2 hand tool preparation is not suggested.
- 4 Apply the coating product according to the coating manufacturer's recommendations.