NAVSEA REVIEWED ASTM F-718

The Sherwin-Williams Company

Dura-Plate UHS Epoxy Primer

PRODUCT DESIGNATIONS

Dura-Plate - B62H210, B62L210, B62V210 (optically active pigment)

MIL-PRF-23236

If this product is to be applied as part of a coating system, all components of the system must be as listed on the QPL.

This NAVSEA-REVIEWED ASTM F-718 data sheet is the only data sheet approved for use when utilizing this coating for U.S. Navy preservation projects. NAVSEA's review covers only the application process for the material. The review does not denote the material as a qualified product, nor does it constitute an approval for purchase/procurement of the material. For products on the Qualified Products List (QPL) for this MILSPEC, please refer to http://qpldocs.dla.mil/search/default.aspx.

Questions regarding modifications or updates of this ASTM F-718 shall be directed toward:

NSWCPD

NSWCPD_ASTM_F718.fct@navy.mil

SHERWIN-WILLIAMS Protective & Marine Coatings

SHIPBUILDERS AND MARINE PAINTS AND COATINGS PRODUCT/PROCEDURE DATA SHEET

CONTINUATION SHEET USED: ☒ YES ☐ NO

Date: 18 Oct 11 Rev.

I. GENERIC TYPE AND DESCRIPTION: UHS Epoxy Primer
Specification Number, Type, Class and/or Grade (If Applicable): MIL-PRF-23236

II. MANUFACTURERS DATA:

(a) MANUFACTURER: The Sherwin-Williams Company

(b) PRODUCT DESIGNATION: Dura-Plate - B62H210, B62L210, B62V210 (optically active pigment).

(c) COLOR(S): Buff, Blue OAP

(d) USES: Ballast tanks, fuel tanks, potable water tanks, non-nuclear boiler feedwater tanks. Where edge retentive film build properties are required.

(e) TECHNICAL SERVICE REPRESENTATIVE
(Include Telephone Nos.): 1-877-877-7115 or your local Sherwin-Williams Marine Representative

(f) NOT RECOMMENDED FOR: Immersion with methanol or methanol blends.

III. PROPERTIES:

(a) % VOLUME SOLIDS (ASTM D 2697): 98% ± 2%

(b) % WEIGHT SOLIDS (ASTM D 1475): 98% ± 2%

(c): FLASH POINT (ASTM TEST METHOD D 93 OR D 56 OR D 3278): >200°F

(d) WEIGHT PER VOLUME: (FTMS 141a4184.1): 11.2 ± 0.2 lbs

(e) % EDGE RETENTION (IF REQUIRED BY APPLICABLE SPECIFICATION): >70%

(f) SHELF LIFE: 36 months

(g) VISCOSITY: COMPONENT A: >100 KUs per ASTM D562, see receipt inspection parameters.

COMPONENT B: 100-140 cps per ASTM D2196, see receipt inspection parameters.

MIXED: 85-130 KUs per ASTM D562, see receipt inspection parameters.

(h) PACKAGING: Part A – 4 gallon container, Part B – 1 gallon container. May also come in gallon kits or drums as requested by shipyard/contractor.

(i) NUMBER OF COMPONENTS: 2

(j) GLOSS (ASTM D 523): 80+ units as measured with 60° gloss meter.

(k) STORAGE REQUIREMENTS: TEMP. MIN. 40°F MAX. 100°F

ADDITIONAL PAINT STORAGE REQUIREMENTS: Protected indoor storage out of sun, rain, etc.

(l) VOLATILE ORGANIC COMPOUND (EPA TEST METHOD 24): Less than 100 g/L (0.83lbs/gal)

(m) WEIGHT OF DRY FILM (WEIGHT/FT^2 AT 1 MIL THICKNESS): 0.0071 lbs/sq ft/mil

(n) SPECIAL PROPERTIES (e.g., STAIN RESISTANCE, LOW SOLAR ABSORBANCE, MOISTURE TOLERANCE): Edge retentive, high-build, high-performance, low VOC coating

IV. SURFACE PREPARATION MINIMUM REQUIREMENTS (USE SPECIFIC STANDARD NUMBERS):

(a) INITIAL - SSPC-SP 10 Near White Metal blast for immersion. Follow NAVSEA Standard Item 009-32 guidelines.

(b) TOUCH-UP - SSPC-SP 11 Power Tool Clean To Bare Metal. Clean and abrade surface prior to recoating.

(c) PROFILE (INCLUDE METHOD USED) - MIN. 2 mils MAX. 4 mils (Testex Tape)

(d) SPECIAL INSTRUCTIONS - Profile: 2-4 mil profile recommended; no less than 1 mil or greater than 5 mils profile acceptable.

(e) PRIMER REQUIREMENTS (IF APPLICABLE): Apply directly to substrate based on surface preparation above.

(f) MAXIMUM ALLOWABLE CONDUCTIVITY (BRESLE PATCH METHOD): Refer to NAVSEA Standard Item 009-32

(g) MAXIMUM DEGREE OF FLASH RUSTING ALLOWABLE (SSPC-SP 12): WJ2L (Refer to NAVSEA Standard Item 009-32)

SPECIAL SAFETY PRECAUTIONS:
See Dura-Plate UHS Primer MSDS

V. MIXING PROCEDURES:

(a) MIXING RATIOS BY WEIGHT – N/A
BY VOLUME – 4:1

(b) INDUCTION TIME - 55°F: 15 minutes; 77°F: None required

(c) RECOMMENDED SOLVENT – THINNING – NO THINNING ALLLOWED
CONFINED AREAS - NO THINNING ALLOWED
NON-CONFINED AREAS - NO THINNING ALLOWED
CLEAN UP - R7K104

(d) THINNING REQUIREMENTS (RATIO) – NO THINNING ALLOWED

(e) POT LIFE - 45 minutes @ 55ºF
45 minutes @ 77ºF

(f) SPECIAL INSTRUCTIONS – Mix contents of each component thoroughly using power agitation. Make certain that no pigment remains on the bottom or the sides of the can, then combine four parts by volume of Part A with one part by volume of Part B. Thoroughly agitate the mixture with power agitation.

VI. APPLICATION:

(a) ENVIRONMENTAL LIMITATIONS -

SUBSTRATE TEMPERATURE: MIN. 50°F MAX. 110°F

MINIMUM SUBSTRATE TEMPERATURE DIFFERENCE ABOVE THE DEW POINT - 5°F

RELATIVE HUMIDITY: Refer to NAVSEA Standard Item 009-32

AMBIENT TEMPERATURE: MIN. 50°F MAX. 110°F

(b) FILM THICKNESS (SSPC-PA 2):

PER COAT:
WET MIN. 4 mils WET MAX. 8 mils

DRY MIN. 4 mils DRY MAX. 8 mils

TOTAL SYSTEM:

DRY MIN. 4 mils DRY MAX. 8 mils (see NAVSEA Standard Item 009-32 or QPD for full system parameters).

(c) DRY TIMES (ASTM D 1640) – See Figures 1-4 on following pages.

(d) EQUIPMENT REQUIREMENTS (INCLUDE PREFERRED, SUITABLE, NOT SUITABLE REQUIREMENTS) - Airless spray or plural component. Brush (natural bristle/nylon) or roller (3/8”woven with phenolic core) for stripe coating and repair only.

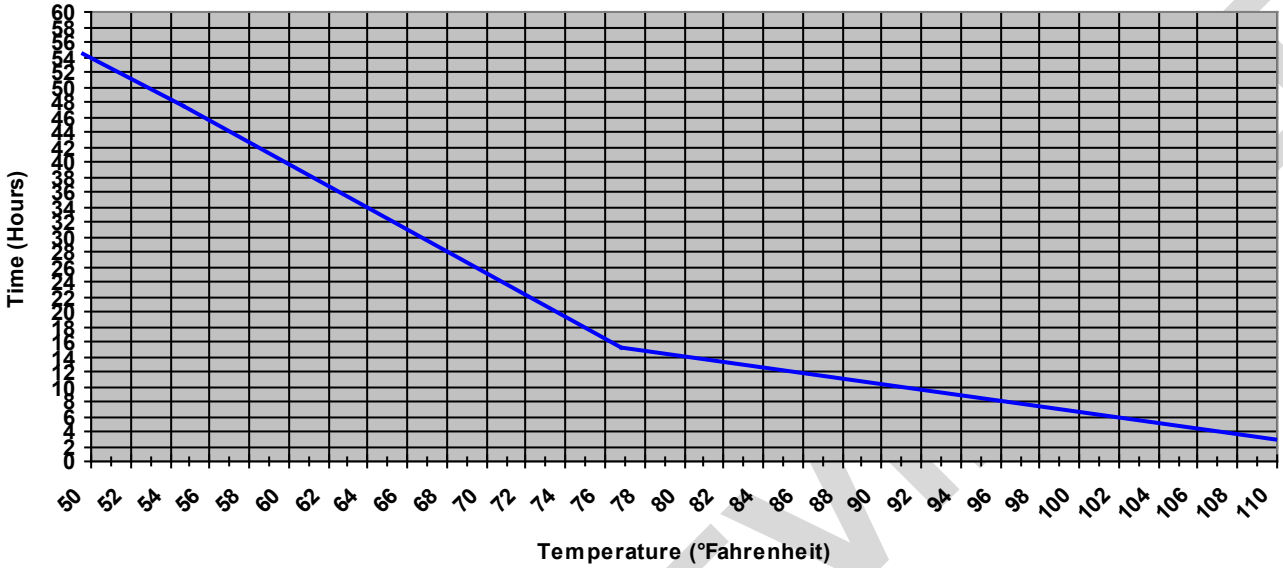
IF PLURAL COMPONENT EQUIPMENT IS REQUIRED, STATE SO - Highly preferred and recommended, but not required.

IF HEATED LINES ARE REQUIRED, STATE SO – Not required.

(e) SPECIAL INSTRUCTIONS - If maximum recoat time is exceeded, abrade surface before recoating. Reduction is not recommended. Application of coating below minimum or above maximum recommended spreading rate may adversely affect coating performance. Ensure substrate temperature is at least 5°F above the dew point prior to application. Dry times are normally a function of humidity, ventilation and temperature. Information given is to be used as a guideline only.

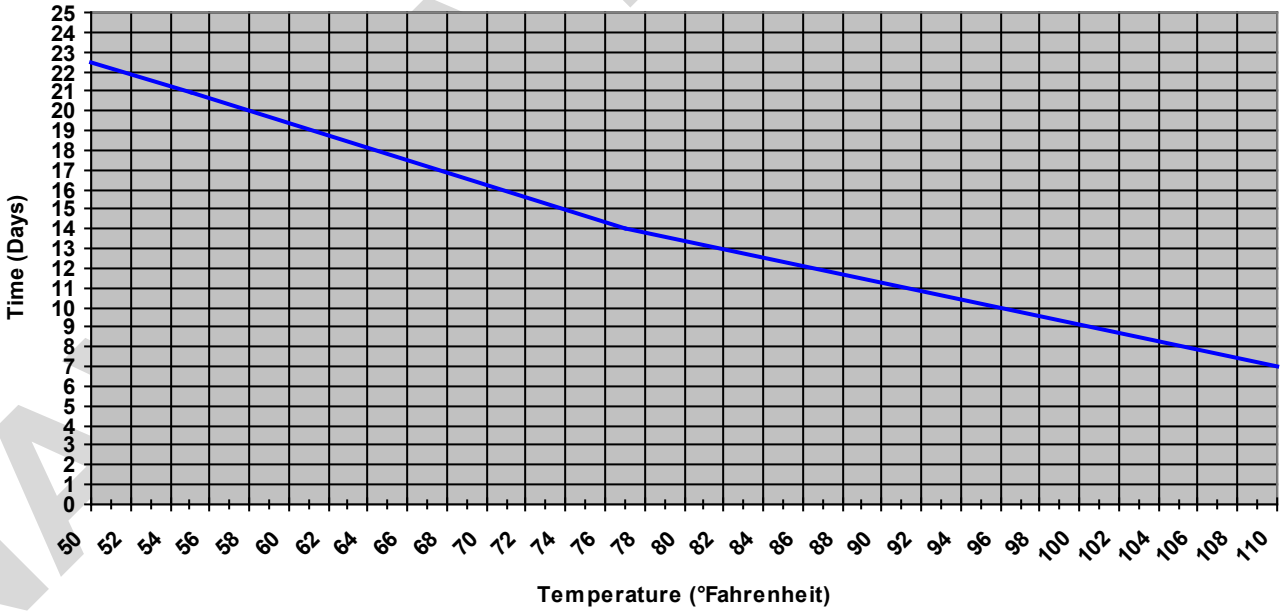
REPAIR PROCEDURES IF THE OVERCOAT WINDOW HAS BEEN EXCEEDED: Clean surface of coating per SSPC-SP 1, aggressively abrade surface with 80 grit sandpaper or equivalent to promote adhesion, clean surface to SSPC-SP 1 again.

Figures 1 & 2. Dura-Plate UHS Primer Minimum Cure to Recoat & Handle Time



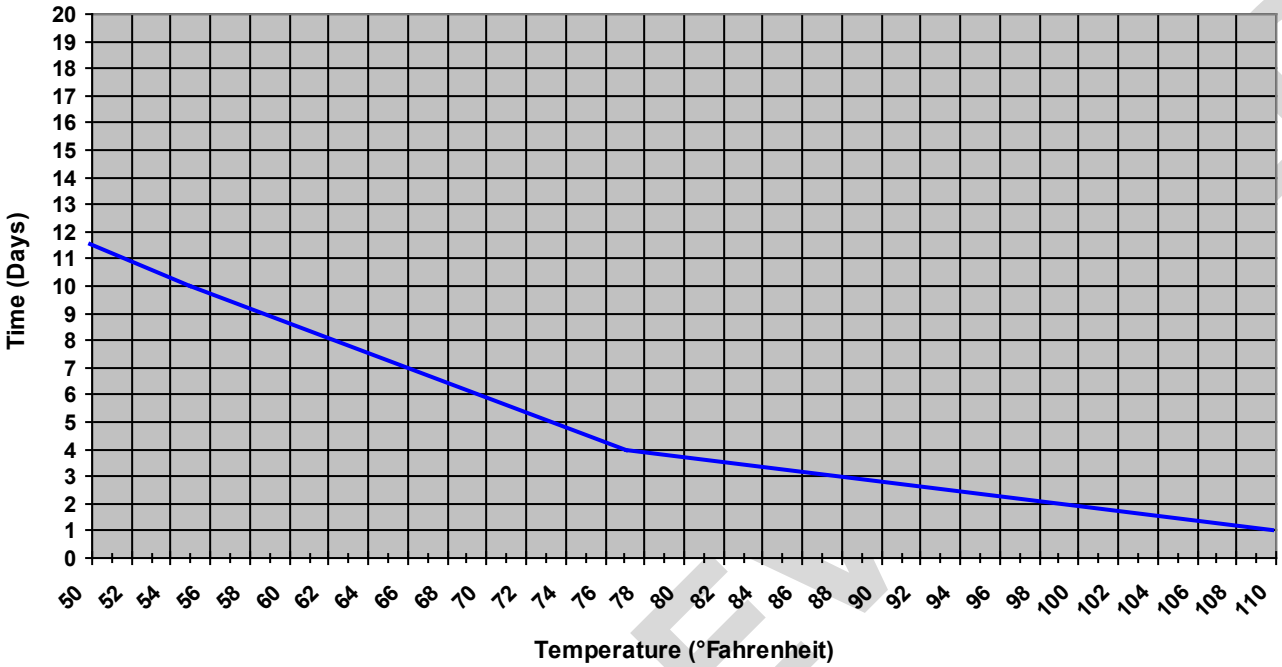
The above curing schedule is at 6.0 mils wet and 50% relative humidity.
Drying time is temperature, humidity, and film thickness-dependent.
The above information is provided for guideline use only.

Figure 3. Dura-Plate UHS Primer Maximum Cure to Recoat Time



The above curing schedule is at 6.0 mils wet and 50% relative humidity.
Drying time is temperature, humidity, and film thickness-dependent.
The above information is provided for guideline use only.

Figure 4. Dura-Plate UHS Primer Minimum Cure to Service Time



The above curing schedule is at 6.0 mils wet and 50% relative humidity.
Drying time is temperature, humidity, and film thickness-dependent.
The above information is provided for guideline use only.

ASTM F 718 CONTINUATION SHEET FOR

SHIPBUILDERS AND MARINE PAINTS AND COATINGS PRODUCT/PROCEDURE DATA SHEET

Date 18 Oct 11 Rev.

I. GENERIC TYPE AND DESCRIPTION: UHS Epoxy Primer
Specification Number (If Applicable): MIL-PRF-23236

ADDITIONAL DATA/ INSTRUCTIONS:

II. MANUFACTURERS DATA:

ADD ADDITIONAL COMMENTS FROM PART II HERE: Note that the color names "Buff" and "Gold" have been used interchangeably for Dura-Plate UHS Primer. Buff and Gold are the same color.

III. PROPERTIES:

ADD ADDITIONAL COMMENTS FROM PART III HERE: N/A

IV. SURFACE PREPARATION MINIMUM REQUIREMENTS (USE SPECIFIC STANDARD NUMBERS):

ADD ADDITIONAL COMMENTS FROM PART IV HERE: N/A

V. MIXING PROCEDURES

ADD ADDITIONAL COMMENTS FROM PART V HERE: N/A

VI. APPLICATION REQUIREMENTS

ADD ADDITIONAL COMMENTS FROM PART VI HERE: WARRANTY DISCLAIMER: THE TECHNICAL DATA GIVEN HEREIN HAS BEEN COMPILED FOR THE ASSISTANCE OF THE USER AND GUIDANCE IS BASED ON THE EXPERIENCE AND KNOWLEDGE OF THE MANUFACTURER. HOWEVER, AS THE MANUFACTURER HAS NO CONTROL OVER THE USE OF THIS INFORMATION, NO WARRANTY, EXPRESSED OR IMPLIED, IS INTENDED OR GIVEN.

NST Center ID#: 1233

Sherwin-Williams ASTM F718 Addendum
*Use of CHLOR*RID Salt Remover*
January 24, 2018

Per 009-32 FY-18 CH-1 section 3.10.6.6 (and similarly noted in other FY versions of 009-32), the use of CHLOR*RID salt remover is authorized. Sherwin-Williams provides this document as an ASTM F718 addendum for the following Sherwin-Williams MIL-PRF-23236 qualified products:

Fast Clad ER
Fast Clad Primer
Fast Clad Brush Grade
SherPlate PW
DuraPlate UHS Primer
DuraPlate UHS
NovaPlate UHS Primer
NovaPlate UHS
EuroNavy ES301 Series
SeaGuard 5000 HS
DuraPlate 235
ExpressCote 150

When used in accordance with the manufacturers and the following instructions, Sherwin-Williams approves the use of CHLOR*RID, in conjunction with the above products, for U.S. Navy related projects:

1. CHLOR*RID is added to wash water at appropriate level per product recommendation.

2. After water washing with CHLOR*RID, allow substrate to fully dry. ALL treated substrate surfaces MUST be abrasive blasted to an SSPC-SP10 Near White Metal condition post CHLOR*RID application.

3. Failure to reblast all treated surfaces, regardless of their condition post CHLOR*RID application, voids these instructions and subsequent implied or direct warranties.

4. Accomplish surface conductivity checks as required per 009-32 after SSPC-SP10 Near White Metal reblast. Follow pass/fail criteria established in 009-32 including additional remedial steps as necessary.

5. Please see appropriate references in NAVSEA Standard Item 009-32.

Mark Schultz
Government Marine Manager
Sherwin-Williams