## **NAVSEA REVIEWED ASTM F-718**

## **Sherwin-Williams**

# **Fast Clad Brush Grade Epoxy**

## **PRODUCT DESIGNATIONS**

Part A: B62W240, B62L242, and B62-240 Series

Part B: B62V240 and B62-240 Series

Approved for touch-up coating for Fast Clad ER (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 <a href="https://qpldocs.dla.mil/search/default.aspx">https://qpldocs.dla.mil/search/default.aspx</a>.

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

NSWCPD

NSWCPD ASTM F718.fct@navy.mil

#### SHIPBUILDERS AND MARINE PAINTS AND COATINGS PRODUCT/PROCEDURE DATA SHEET

I. GENERIC TYPE AND DESCRIPTION: Epoxy

Date: July 28, 2019

Specification Number: No MIL-Spec - approved as touch-up coating

NOTE: For Type/Grade/Class/Application information see QPD- No MIL-Spec - approved as touch-up coating

#### II. MANUFACTURERS DATA:

- (a) MANUFACTURER: Sherwin-Williams
- (b) PRODUCT DESIGNATION: Fast Clad Brush Grade Epoxy. Part A: B62W240, B62L242, and B62-240 Series. Part B: B62V240 and B62-240 Series
- (c) COLOR(S): Various colors including, but not limited to: OAP Blue, White, Light Green, Light Gray, Red Oxide (20109), Haze Gray (26270)
- (d) USES: Touch-up coating for Fast Clad ER.
- (e) TECHNICAL SERVICE REPRESENTATIVE: 1-877-877-7115 or your local Sherwin-Williams Representative

#### III. PROPERTIES:

- (a) PERCENT VOLUME SOLIDS (ASTM D2697): 83 %
- (b) PERCENT WEIGHT SOLIDS (ASTM D2369): 90 %
- (c) FLASH POINT (ASTM D93 Pensky-Martens Closed Cup ):

Part A: 178 °F (81 °C)

Part B: 158 °F (70 °C)

Mixed: 100°F (38 °C)

(d) WEIGHT PER VOLUME (ASTM D1475):

Part A: 12.75 lb/gal (1528 g/L)

Part B: 9.40 lb/gal (1126 g/L)

Mixed: 11.1 + or - 0.6 lb/gal (1330 + or - 72 g/L)

- (e) PERCENT EDGE RETENTION, IF REQUIRED BY APPLICABLE SPECIFICATION (Not required): Not required %
- (f) SHELF LIFE: 24 Months
- (g) VISCOSITY ( ASTM D562 for Part A and Mixed, ASTM D2196 with Brookfield Viscometer, Spindle #3, 100 RPM for Part B ):

Part A: 125 KU's @ 25°C (77°F)

Part B: 414 centipose @ 25°C (77°F)

Mixed: 95 KU's @ 25°C (77°F)

- (h) PACKAGING: 1/2 gallon kit: Part A is 1 quart in 1 gallon container and Part B is 1 quart in 1 quart container.
- (i) NUMBER OF COMPONENTS: 2
- (j) GLOSS (ASTM D523): High gloss (>80) GU
- (k) STORAGE REQUIREMENTS: TEMPERATURE: 40 °F ( 4 °C) MIN.  $\,$  100 °F ( 38 °C) MAX.

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

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- (I) VOLATILE ORGANIC COMPOUNDS (VOCS- EPA TEST METHOD 24): <1.25 lb/gal ( <150 g/L)
- (m) WEIGHT PER AREA OF DRY FILM AT 1 MIL THICKNESS: 0.0075 lb/sq. ft. (36.6 g/m²)
- (n) SPECIAL PROPERTIES: Extended pot-life touch-up material for Fast Clad ER.

#### IV. SURFACE PREPARATION MINIMUM REQUIREMENTS:

- (a) INITIAL CLEANLINESS: SSPC-SP 10 (Near White Metal Abrasive Blast) or SSPC-SP WJ-2 M /NACE WJ-2/M (UHPWJ Very Thorough Cleaning, Moderate Flash Rust) or SSPC-SP 10 (WAB) M/NACE WAB-2/M (Near-White Metal Wet Abrasive Blast Cleaning, Moderate Flash Rust).
- (b) TOUCH-UP CLEANLINESS: SSPC-SP 11 Power Tool Clean to Bare Metal areas requiring touch-up. Clean and abrade 1" to 2" of coating surface adjacent to touch-up areas with 80 grit sandpaper (or equivalent) to create tie-in and promote adhesion prior to recoating.
- (c) PROFILE (ASTM D4417, Methods B or C): 2 mils MIN. 4 mils MAX.
- (d) SPECIAL INSTRUCTIONS: 2 4 mil profile recommended, up to 5 mil profile acceptable
- (e) PRIMER REQUIREMENTS: Fast Clad Brush Grade can be applied direct to metal or directly onto Fast Clad Primer or Fast Clad ER.
- (f) MAXIMUM ALLOWABLE CONDUCTIVITY (ISO 8502-9):

Conductivity samples shall be collected using a product that meets the requirements of NACE SP0508-2010, "Methods of Validating Equivalence to ISO 8502-9 on Measurement of the Levels of Soluble Salts." For immersed areas maximum conductivity is 30 micro-siemens/cm. For non-immersed areas maximum conductivity is 70 micro-siemens/cm.

(g) MAXIMUM DEGREE OF FLASH RUSTING ALLOWED: Moderate as defined in SSPC-SP WJ-2 M /NACE WJ-2/M (UHPWJ Very Thorough Cleaning, Moderate Flash Rust) or SSPC-SP 10 (WAB) M/NACE WAB-2/M (Near-White Metal Wet Abrasive Blast Cleaning, Moderate Flash Rust).

#### SPECIAL SAFETY PRECAUTIONS:

See Material Safety Data Sheet or Globally Harmonized System Safety Data Sheet

#### V. MIXING PROCEDURES

(a) MIXING RATIOS BY WEIGHT: N/A

BY VOLUME: 1:1

- (b) INDUCTION TIME: Zero Minutes
- (c) RECOMMENDED CLEANING SOLVENT (NO THINNING ALLOWED): MAK, MEK, R6K10, or R7K104
- (d) POT LIFE:

30 minute(s) @ 40 °F ( 4 °C) 25 minute(s) @ 77 °F ( 25 °C) 20 minutes(s) @ 110 °F ( 38 °C)

Graphs included on page: See attached Figures 1 - 4 for Fast Clad Brush Grade recoat and cure to service time/ temperatures.

#### SHIPBUILDERS AND MARINE PAINTS AND COATINGS PRODUCT/PROCEDURE DATA SHEET

e) SPECIAL INSTRUCTIONS: Mix contents of individual components thoroughly using power agitation. Make certain no pigments remain on the bottom or sides of the cans. Then combine 1 parts by volume Part A with 1 part by volume Part B and thoroughly mix with power agitation. Material must be at least 50°F (10°C) prior to catalyzing.

#### VI. APPLICATION:

(a) ENVIRONMENTAL LIMITATIONS:

SUBSTRATE TEMPERATURE: 40°F (1.7°C) MIN. 110°F (49°C) MAX. AMBIENT TEMPERATURE: 40°F (1.7°C) MIN. 110°F (49°C) MAX. DIFFERENCE ABOVE THE DEW POINT: 5 °F ( 3 °C) MAXIMUM PERCENT RELATIVE HUMIDITY: 85 %

(b) FILM THICKNESS (SSPC PA2-73T): PER COAT:

10 mils WET MIN. 12 mils WET MAX. 8 mils DRY MIN. 10 mils DRY MAX.

TOTAL SYSTEM:

Varies by system - mils DRY MIN. Varies by system - mils DRY

MAX.

(c) DRY TIMES (ASTM D1640):

Minimum Overcoat Window:

24 Hr(s) @ 40 °F (4.4°C) 4 Hr(s) @ 77 °F (25.0°C) 4 Hr(s) @ 110 °F (43.3°C)

Maximum Overcoat Window:

14 days Hr(s) @ 40 °F (4.4°C) 14 days Hr(s) @ 77 °F (25.0°C) 14 days Hr(s) @ 110 °F (43.3°C)

Dry to Handle:

24 Hr(s) @ 40 °F (4.4°C) 6.5 Hr(s) @ 77 °F (25.0°C) 2 Hr(s) @ 110 °F (43.3°C)

Dry to Service:

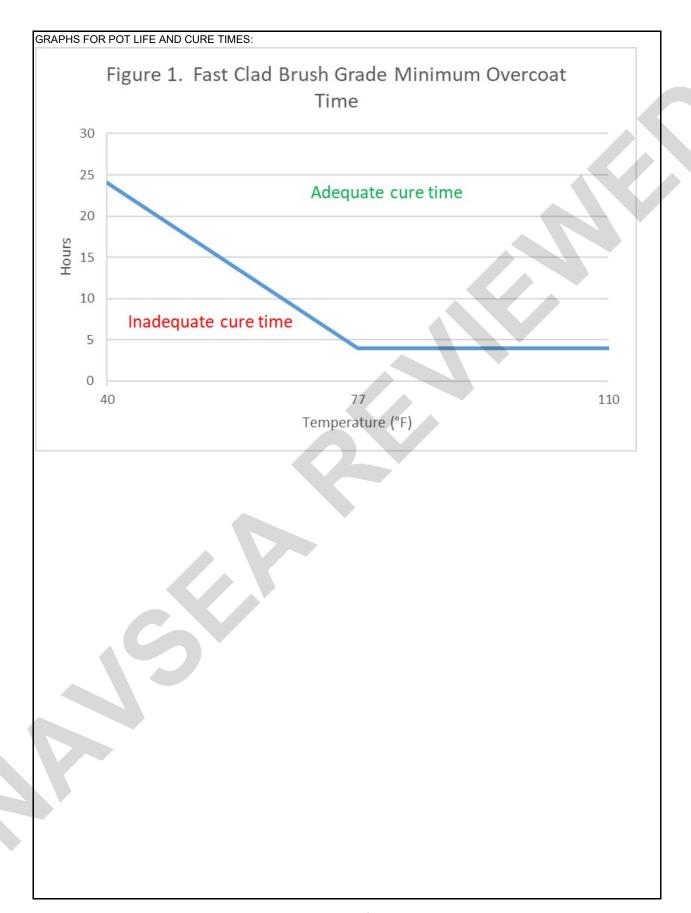
48 Hr(s) @ 40 °F (4.4°C) 24 Hr(s) @ 77 °F (25.0°C) 6 Hr(s) @ 110 °F (43.3°C)

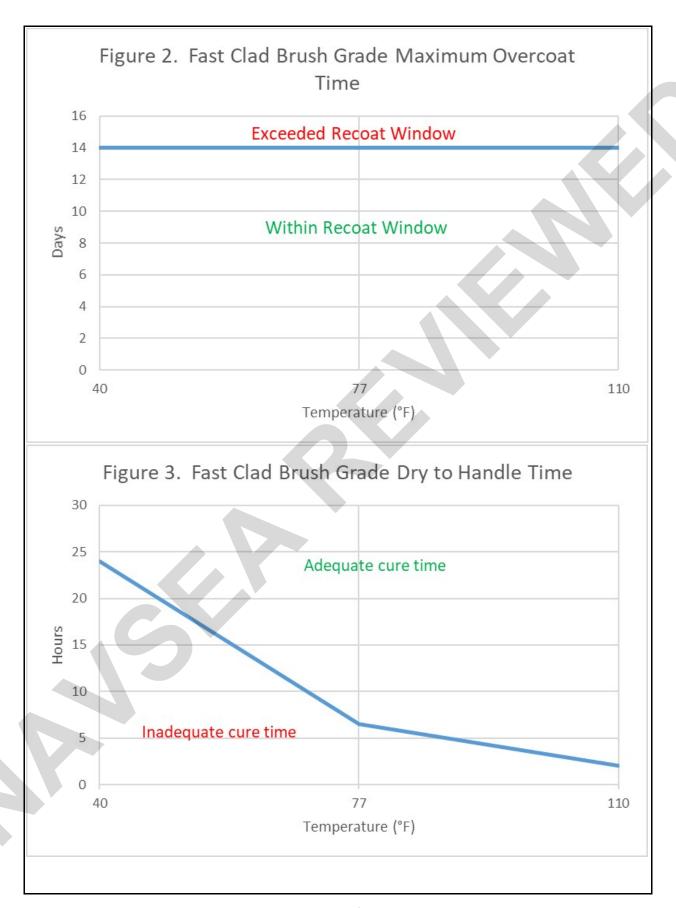
Graphs included on page 5-7 (see Figures 1-4) or additional information included on page 7

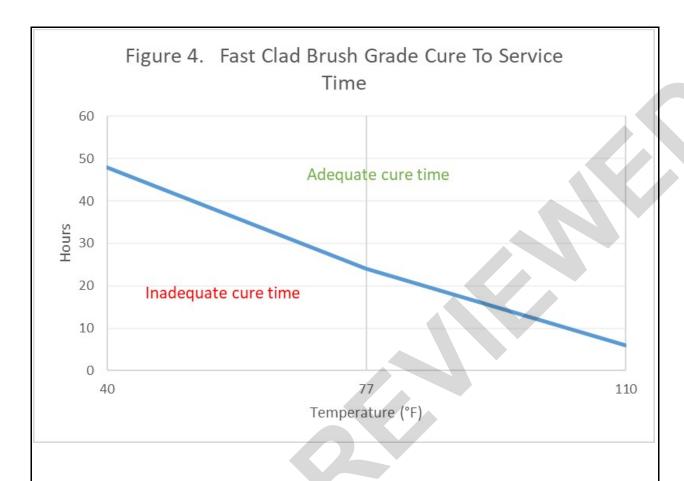
- (d) EQUIPMENT REQUIREMENTS: Spray, brush, and roll
- (e) SPECIAL INSTRUCTIONS: Based on Fast Clad Brush Grade application requirements in Standard Item 009-32 and historical NAVSEA policy, Fast Clad Brush Grade use shall be limited to no more than 3% of the total surface area of the given tank space or zone. Fast Clad ER shall be sprayed via plural component spray and manually in small volumes using cartridges, blister packs, or other small applications via brush and roll without limitation for touch-up. Fast Clad Brush Grade was not qualified for widespread use and application areas are limited to no more than 3% of the total surface area of the given tank space or zone. Do not apply material past the recommended pot-life.

IF OVERCOAT WINDOW HAS BEEN EXCEEDED FOR CRITICAL APPLICATIONS: Clean surface of coating per SSPC-SP 1 and allow surface to dry. Using 80 grit sandpaper or equivalent, aggressively abrade surface to promote adhesion. Clean surface of coating per SSPC-SP 1 and allow to dry completely prior to applying next coat.









### ADDITIONAL DATA/INSTRUCTIONS:

- I. GENERIC TYPE AND DESCRIPTION:
- II. MANUFACTURERS DATA:
- III. PROPERTIES:
- IV. SURFACE PREPARATION MINIMUM REQUIREMENTS:
- V. MIXING PROCEDURES:
- VI. APPLICATION:

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.