NAVSEA REVIEWED ASTM F-718

The Sherwin-Williams Company

N43S100 (formerly CHEM 2040)

PRODUCT DESIGNATIONS

Paint, Aluminum Heat Resisting 1200° F

TT-P-28

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 ASTM F718 Shipbuilders & Marine Product/Procedure Data Sheet TT-P-28

I. GENERIC TYPE & DESCRIPTION: PAINT, ALUMINUM HEAT RESISTING 1200°F

SPECIFICATION NO. (IF APPLICABLE): TT-P-28

II. MANUFACTURING DATA:

(a) MANUFACTURER:	The Sherwin-Williams Co.	(b) PRODUCT DESIGNATION:	N43S100
(c) COLOR(S)	Aluminum	(d) USES:	For superheated steam lines, boiler casings, smoke stacks, or other similar high temperature applications on marine vessels.
(e) TECHNICAL SERVICE REPRESENTATIVE: Customer Service Hotline 1-877-877-7115		(f) NOT RECOMMENDED FOR: Immersion.	

III. PROPERTIES:

(a) % VOLUME SOLIDS: (ASTM D2697)	44.0 % minimum	(b) FLASH POINT (SETA FLASH):	45°F
(c) WEIGHT/GALLON: (ASTM D1475)	9.14+/- 0.2 lb.	(d) SHELF LIFE:	12 months
(e) VISCOSITY (ASTM D562):	N/A	(f) PACKAGING:	1 and 5 gallon containers
(g) NUMBER OF COMPONENTS:	1	(h) GLOSS (ASTM D523):	Aluminum sheen
(i) STORAGE REQUIREMENTS:	Maintain material in protected storage between 40°F and 100°F.		
(j) REGULATORY DATA:	VOC: 458 g/L (3.82 lbs./gal.).		

(k) WEIGHT OF DRY FILM (WEIGHT PER SQUARE FOOT AT A GIVEN THICKNESS): N/A

SPECIAL SAFETY PRECAUTIONS

REFER TO MATERIAL SAFETY DATA SHEET (MSDS)

IV. SURFACE PREPARATION MINIMUM REQUIREMENTS:

Refer to NAVSEA Standard Item 009-32

V. MIXING PROCEDURE:

(a) MIXING RATIO BY WEIGHT: N/A
BY VOLUME: N/A

(b) INDUCTION TIME: N/A

(c) RECOMMENDED SOLVENT(S): THINNING: Butyl Acetate, R6K18
CLEAN UP: Butyl Acetate, R6K18

(d) THINNING REQUIREMENTS (%): As needed up to 5% by volume

(e) POT LIFE: N/A

(f) SPECIAL INSTRUCTIONS: Lightly stir before use. Do not shake with mechanical shaker or overly agitate, as a dull, non-uniform, mottled appearance will result. (For cartridge use, see next page.)

VI. APPLICATION:

(a) ENVIRONMENTAL LIMITATIONS:

TEMPERATURE: MIN: 40°F MAX: 85°F

% RELATIVE HUMIDITY: Refer to NAVSEA Standard Item 009-32

(b) FILM THICKNESS: Refer to NAVSEA Standard Item 009-32

(c) DRY TIMES – TO TOUCH

40°F @ 50% R.H.	MIN: 2 hours	MAX:	-
60°F @ 50% R.H.	MIN: 1 hours	MAX:	-
80°F @ 50% R.H.	MIN: 30 minutes	MAX:	-

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(c) DRY TIMES – RE-COAT

40°F @ 50% R.H.	MIN: 24 hours	MAX:	-
60°F @ 50% R.H.	MIN: 8 hours	MAX:	-
80°F @ 50% R.H.	MIN: 3 hours	MAX:	-

(c) DRY TIMES – TO SERVICE

40°F @ 50% R.H.	MIN: 24 hours	MAX:	-
60°F @ 50% R.H.	MIN: 8 hours	MAX:	-
80°F @ 50% R.H.	MIN: 8 hours	MAX:	-

Cure to service time refers to the number of hours the final coat should air dry before the unit is placed under heat service.

(d) EQUIPMENT REQUIREMENTS: Airless spray, Conventional spray, Brush (natural bristle).

(e) SPECIAL INSTRUCTIONS: Full hardness of the coating is not achieved until heated at least 1 hour @ 400°F. For more information, please refer to The Sherwin-Williams Product information/Application Bulletin. Proper film thickness of this coating is critical. Excessive thickness will cause blistering and peeling. (For cartridge use, see next page.)

Special Instructions for Dual-Barrel Cartridges

Section V (f) continued, Special Instructions (mixing):

If applying material using dual-barrel cartridges, agitate cartridges for approximately two minutes prior to use with a mechanical cartridge shaker.

Section VI (e) continued, Special Instructions (application):

When applying material via dual-barrel cartridges (spray or extrusion method), all cartridges must be phased-in and de-aired prior to use. Insert cartridge into dispensing gun, hold gun with cartridge and static mixer assembly pointing up and slowly pull gun trigger. Once both materials flow into the static mixer the cartridge is de-aired. Dispense first six inches of material from static mixer into waste receptacle. The cartridge is now phased-in and ready for use.

Heating the cartridges at 90-100^{o}F for 1-2 hours prior to use result in easier flow of coating with overall enhanced application and finished appearance. Do not heat cartridges above 120^{o}F.