



Protective & Marine Coatings

HEAT-FLEX® HI-TEMP 1000HA

B59-830 SERIES

Revised: November 17, 2023

PRODUCT INFORMATION

7.18

PRODUCT DESCRIPTION

HEAT-FLEX HI-TEMP 1000HA is formulated with an innovative silicone acrylic enabling it to be applied to hot metal substrates with temperatures ranges of ambient up to 500°F (260°C). It can be used direct to metal or as a topcoat over Heat-Flex 1200 Plus or an inorganic zinc rich primer to provide increased corrosion protection.

- Single component
- Can be applied to hot substrates up to 500°F (260°C)*
- User-friendly - can be brushed or rolled
- Excellent spray application properties
- Air dries at ambient
- Self-priming

PRODUCT CHARACTERISTICS

Generic type:	Silicone acrylic
Color:	SW4003 Pallet Tan, SW4054 Basin, SW4070 Generator Green, Black, Cirrus Gray, Shale Gray, Thunder Gray, New-Toned White
Finish:	Flat
Volume solids:	50-52%, depending on color 38% Aluminum
VOC:	381 g/L; 3.2 lb/gal 417 g/L; 3.48 lb/gal Aluminum

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	3.5 (87)	4.0 (100)
Dry mils (microns)	2.0 (50)	2.5 (62.5)
~Coverage sq ft/gal (m ² /L)	334 (8.2)	417 (10.2)
Theoretical coverage sq ft/gal (m ² /L) @ 1 mil / 25 microns dft	834 (20.5)	

Drying Schedule @ 50% RH:

	@ 50°F/10°C	@ 77°F/25°C
To touch:	9 hours	6 hours
To recoat:	24 hours	10 hours
To ship:	72 hours	48 hours

Drying time is temperature, humidity, and film thickness dependent. Higher temperatures will reduce tack free, recoat, and ship times. To achieve optimum film properties, a heat cure of 350°F/177°C for 30 minutes is required.

Shelf Life:	12 months, unopened Store indoors at 50°F (10°C) to 100°F (38°C).
Flash Point:	102°F (39°C)
Reducer:	Not recommended
Clean Up:	Xylene, R2K4

Do not exceed maximum recommended DFT. May affect adhesion.

RECOMMENDED USES

- Direct to stainless steel or carbon steel
- Can be applied to hot substrates up to 500°F (260°C)
- Cyclic service up to 500°F (260°C) with temperature spikes up to 600°F (316°C)
- Power plants
- Chemical facilities
- Pulp & Paper
- Refineries
- Offshore/Marine

Not recommended for:

- Continuous exposure to temperatures above 500°F (260°C)
- Direct application to surfaces having a surface temperature above 500°F (260°C) (NOTE: Aluminum can not be applied above 250°F)
- Immersion service
- Interiors of industrial air pollution control devices

RECOMMENDED SYSTEMS

Dry Film Thickness / ct.			
Mils (Microns)			
Carbon Steel or Stainless Steel - Atmospheric:			
Ambient or Hot Steel up to 500°F (260°C)			
1 ct.	Heat-Flex 1200 Plus	5.0-6.0	(125-150)
1 ct.	Heat-Flex Hi-Temp 1000HA**	2.0-2.5	(50-62)
or			
2 cts.	Heat-Flex Hi-Temp 1000HA**	2.0-2.5	(50-62)
Carbon Steel or Stainless Steel - Atmospheric:			
Ambient up to 120°F (49°C)			
1 ct.	EpoPhen FF***	7.0-9.0	(175-225)
1 ct.	Heat-Flex Hi-Temp 1000HA	2.0-2.5	(50-62)
or			
1 ct.	Phenicon HS FF***	5.0-6.0	(125-150)
1 ct.	Heat-Flex Hi-Temp 1000HA	2.0-2.5	(50-62)
or			
1 ct.	Cor-Cote HT***	4.0-5.0	(100-125)
1 ct.	Heat-Flex Hi-Temp 1000HA	2.0-2.5	(50-62)
or			
1 ct.	Cor-Cote HT FF***	4.0-5.0	(100-125)
1 ct.	Heat-Flex Hi-Temp 1000HA	2.0-2.5	(50-62)

**Must apply a mist coat of Heat-Flex Hi-Temp 1000HA. Allow 10 minutes flash off and follow with a full coat.

***Refer to respective product data sheet for maximum service temperature recommendation.

NOTE: Heat-Flex Hi-Temp 1000HA is also suitable for use over inorganic zinc rich primers.

TINTING

Do not tint

APPLICATION CONDITIONS

Temperature:
surface 50°F (10°C) minimum, 500°F (260°C) maximum
air and material 50°F (10°C) minimum, 120°F (49°C) maximum
At least 5°F (2.8°C) above dew point,
Relative humidity: 85% maximum



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SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Minimum recommended surface preparation:

Iron & Steel: SSPC-SP6, 1.5-2.5 mil
(40-63 micron) profile
Or SSPC-SP11, 1.0-2.5 mil
(25-63 micron) profile

Stainless Steel: SSPC-SP1, Do not use chlorinated solvents for cleaning

Iron & Steel

Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Commercial Blast Cleaning per SSPC-SP6/NACE 3. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (1.5-2.5 mils / 40-63 microns maximum). If SSPC-SP6/NACE 3 is not possible, Power Tool Cleaning to Bare Metal per SSPC-SP11 is also acceptable (1.0-2.5 mil / 25-63 micron profile maximum). Hand Tool Cleaning per SSPC SP 2 or Power Tool Cleaning per SSPC SP 3 are acceptable preparation methods when SSPC SP 6 or SSPC SP 11 are not possible. Coat any bare steel the same day as it is cleaned or before flash rusting occurs. On stainless steel, clean per SSPC-SP1. Aluminum Oxide grit is also acceptable for use. Do not use chlorinated solvents for cleaning stainless steel. Product performance is relative to the surface preparation achieved.

Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	CSt 2	CSt 2	SP 2	-
Pitted & Rusty	DSt 3	DSt 3	SP 3	-
Rusty	DSt 3	DSt 3	SP 3	-
Power Tool Cleaning	DSt 3	DSt 3	SP 3	-

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Conventional spray is the recommended method of application. Do not apply in heavier films than specified as blistering may occur.

Conventional Spray:

GunGraco 700N
Fluid Nozzle0.045" - 0.055"
Air Nozzle.....20 cfm
Atomizing Pressure.....50 psi
Fluid Pressure.....20-30 psi
Reduction.....Not recommended

Airless Spray:

Unit.....30:1 Pump
Pressure.....2700-3000 psi
Hose.....3/8" ID
Tip0.017" - 0.019"
Filter60 mesh
Reduction.....Not recommended

APPLICATION EQUIPMENT (CONT'D)

Brush

Brush.....Natural bristle
Reduction.....Not recommended

Roller

Cover1/4"-3/8" woven with solvent resistant
core
Reduction.....Not recommended

If specific application equipment is not listed, equivalent equipment may be substituted. For brush and roller application, maintain a wet edge while avoiding runs or excess film build.

APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mixing Instructions: Mix paint thoroughly with low speed, spark-proof, power agitation before use. Obtain a uniform consistency. Do not incorporate air.

CLEAN UP

Clean spills and spatters immediately with Xylene, R2K4. Clean tools immediately after use with Xylene, R2K4. Follow manufacturer's safety recommendations when using any solvent.

ORDERING INFORMATION

Weight per gallon: 13.5 lb (6.1 kg)

SAFETY PRECAUTIONS

Refer to the SDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

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