

899 Series HiTemp 1000°F

Dry-Fall Modified Silicone Copolymer DTM/Topcoat



899 Series is a single package modified silicone copolymer coating that may be applied up to 8 mils in 1 coat, providing premium temperature and corrosion resistance as well as outstanding adhesion to minimally prepared surfaces. It exceeds conventional high temperature paint products in temperature cure requirements, heat stability (thermal shock), corrosion resistance, color purity, and ease of application. These qualities make the 899 Series an excellent choice for high temperature painting in power plants, refineries, and other components/ areas that see elevated temperatures up to 1000°F. 899 Series is the only 1000°F Direct-To-Metal product available in a variety of colors.

Tech Specs

Heat Resistance:	1000°F Constant
Color Stability:	1000°F for All Colors
Vehicle Type:	Modified Silicone Copolymer
Reducer:	Required for Dry-Fall Applications 30-E for Dry-Fall Applications >80°F 32-E for Dry-Fall Applications <80°F
Mix Ratio:	Single Package
Pot Life:	N/A
Volume Solids:	52%
Theoretical Coverage:	834ft ² /gal. @ 1 mil DFT
VOC:	3.32 lbs per gallon (408 g/L)
Flash Point:	54°F (Lowest Flashing Component)
Dry Film Thickness:	4-8 mils DFT in DTM services 2-3 mils DFT as a Topcoat
Wet Film Thickness:	7.7-15 mils maximum

Dry-time:	Normal
To Touch:	15 Minutes
Tack Free:	30 Minutes
To Handle:	4-6 Hours
Put in Service:	24 Hour Ambient Flash
Cure Requirements:	Complete cure achieved at 350°F
Shelf Life:	2 Years Minimum
Finish:	Flat
Color:	Standard & Custom Colors
Packaging:	1 gallon pails & 5 gallon pails
Storage Temperature:	20°F - 110°F
Application Temp:	
Ambient:	45°F Minimum
Substrate:	40°F - 140°F
Hot Application:	Up to 400°F Using Highland #101a reducer – Contact Highland for application recommendations.

Surface Preparation

All surfaces should be clean, dry and free of all foreign contaminants.

A SSPC-SP1 Solvent Cleaning with Highland 901 Cleaning Solvent is recommended before blasting or other cleaning method.

Carbon Steel:

Best: A SSPC-SP 10 Near White Metal Blast to achieve a low blast profile of 1.5-3.0 mils is recommended (especially for CUI services).

Good: A SSPC-SP6 Commercial Blast will provide good results in most situations.

Acceptable: While abrasive blast cleaning is preferred, when it is not an option, Hand or Power Tool Cleaning per SSPC-SP2 or SSPC-SP3 may be used and will provide good results.

Galvanized Steel: Contact a Highland representative as recommendation will vary depending on substrate and exposure conditions.

Mixing & Application

Mixing: Highland 899 Series needs to be thoroughly mixed using mechanical agitation. It is ready to spray after proper mixing.

Reduction for Standard Spray Applications: Reduction is not required, if desired, reduce by 0% - 10% with Highland 30-E or 32-E reducer.

Reduction for Dry-Fall "Spray-Safe" Applications: Highland 899 Series must be reduced 15%-20% with Highland 30-E or 32-E reducer to achieve the dry-fall effect. Surface temperatures should not exceed 140°F when using 899 Series in a dry-fall application.

Dry-Fall Application Instructions: To assure Dry-Fall effect, do not apply in temperatures below 45°F, on surfaces below 40°F, or humidity above 85% Rh. When humidity is above 50%, take caution to observe the dry-fall range as it may extend slightly past the 20 foot mark, up to 50 feet depending on other weather variables. Make sure the equipment being used will give accurate psi readings so the pressure from the pump can be maintained at 1800 psi allowing a maximum +/- 25 psi for surges. Do not apply in temperatures that are 5°F or less from the dew point.

To ensure optimal performance, apply according to recommendations below.

Standard Applications (Non-Dry-Fall)

Airless Gun: Graco 205-591
Pump: 30:1/45:1/60:1
Tip Range: 3.015 – 5.015
Pump Pressure: 1,800-2,100 psi
Hose: 3/8 inch ID

Brush or Roller: Reduce 5-10% with Highland #105 Reducer

Conventional Gun: DeVilbiss MBC-510
Fluid Tip: E
Air Cap: 704
Atomizing Pressure: 60 psi
Pot Pressure: 20 psi
Hose: 1/2 inch

Clean Up: Highland #901 Cleaning Solvent

Spray-Safe Dry Fall Applications

Airless Gun: Graco 205-591
Pump: 30:1/45:1/60:1
Tip Range: 3.011 – 4.013

Pump Pressure: 1,800 psi +/- 25 psi for surges
Hose: 3/8 inch ID
Clean Up: Highland #901 Cleaning Solvent

Typical Systems

DTM Services: Apply 1 coat of 899 Series at 4-8 mils DFT for
Primer/Topcoat: 899 Series may be used as a topcoat with 827-HB Series

Safety Information

- Use normal precautions such as gloves, facemasks and barrier creams.
- Adequate ventilation must be maintained. In confined areas, applicators must wear constant flow airline respirators.
- If product comes into contact with skin, wash thoroughly with lukewarm water or diluted Boric Acid, and obtain immediate medical attention.
- This product contains FLAMMABLE materials. Keep away from sparks and open flames. Observe NO SMOKING regulations.
- All electrical equipment and installations should conform to NEC regulations. In areas where explosion hazards exist, applicators should be required to use nonferrous tools, and to wear conductive, non sparking shoes.
- Observe low flash regulations.
- Refer to Safety Data Sheet (SDS) for complete safety instruction

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