



Smart Coatings & Functional Materials

## Siloxacorr™ Hydrophobic Siloxane

Finish for Allocorr™ Protective Ceramic Alloy

### PRODUCT DESCRIPTION:

**Siloxacorr™ Hydrophobic Siloxane** is a gloss, weather resistant top coat which exhibits outstanding long term gloss and color retention. **Siloxacorr™** is formulated with inorganic resins and inorganic hydrophobic nano particles. It is for use over **Allocorr™ Protective Ceramic Alloy** to provide additional corrosion protection, impact and abrasion resistance, with selective optional colors.

### TECHNICAL DATA:

Components	Two
Mix Ratio	4:1
Type	Low VOC solvent based inorganic hydrophobic
Curing Mechanism	Crosslinking
Induction Time	None
Pot Life	4 hours at 70° F (20° C) 1-1/2 hours at 85° F (30° C)
Thinner	Not normally required; Xylene, maximum 10%
Clean-up	Xylene
Adhesion ASTM 4541	1200 PSI or higher
Operating Service Temperatures	-50° F to 212° F (-45° C to 100° C)
UV Stability	No chance after 18 months exposure
Color	White or select range of colors
Finish	Gloss
Recommended Dry Film Thickness (Each Coat)	3 to 5 mils / 75 to 125 microns
Substrate Temperature During Application	50 - 120° F (10 - 50° C)
Humidity During Application and Cure	Above 40% RH required for best cure
Dew Point	Substrate must be 5° F (3° C) above Dew Point
Dry Time (3 mils DFT (50% R.H., 70° F (21° C)	To touch: 2 hours To handle: 4-1/2 hours To recoat with self: 2 hours
Dry Time (3mils DFT) (50% R.H., 85° F (30° C)	To touch: 1 Hour To handle: 3 hours To recoat with self: 2 hours
Volume Solids	93% (+/- 2%)
Theoretical Coverage at 1 mil DFT	1,490sq ft per gallon
at 25 microns DFT	27 sq ft per liter
Theoretical Coverage at 3 mils DFT	497 sq ft per gallon
at 75 microns DFT	13.0 sq m per liter
VOC	EPA Method 24: 84 g/l (.7 lb/gal)
Weight	12 lbs per gallon
Packaging	1 gallon kits
Storage Temperature	50 - 110° F (10 - 43° C)
Shelf Life	Maximum 1 year

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## SUITABLE SUBSTRATES:

For carbon steel substrates, **Siloxacorr™** is specifically formulated for use as the high performance siloxane hydrophobic finish over the **Allocorr™ Protective Ceramic Alloy**. **Siloxacorr™** can be applied directly to hot dipped Galvanizing, Galvalume and Electro-Galvanized substrates.

## SURFACE PREPARATION:

For application over **Allocorr™ Protective Ceramic Alloy**, assure all surfaces to be finished are dry and free of contaminants and that the substrate temperature, air temperature and dew point are acceptable. Apply the **Siloxacorr™** only when the surface temperature is at least 5° higher than the dew point.

For application directly to a galvanized or other non-carbon steel substrates, contact **Advanced Polymerics, Inc.** for specific surface preparation and application instructions.

## MIXING AND CLEANUP:

Use mechanical agitation and a clean mixing blade to stir the colored resin component before mixing the two components. Combine the two components in a clean mixing container and use mechanical agitation to stir well.

Flush and clean all equipment with Xylene immediately after completing application of **Siloxacorr™**. Dispose of cleanup solvent and any waste paint in accordance with all applicable restrictions and regulations.

## APPLICATION EQUIPMENT:

Use conventional air spray or airless spray equipment suitable for the application of industrial coatings. Brush or roll small areas only.

When over-coating **Allocorr™ Protective Ceramic Alloy**, start application with one or more mist coat passes of **Siloxacorr™** to wet out the ceramic surface and prevent micro-bubbling of the applied **Siloxacorr™**. For brush or roller application, several wet passes will be required to achieve the recommended Dry Film Thickness.

Contact Advanced Polymerics Inc., for specific application equipment recommendations, to check suitability of available application equipment, and for additional details.

## RECOMMENDED SYSTEMS:

When using **Siloxacorr™** over **Allocorr™ Protective Ceramic Alloy**:

Recommended DFT Range:	3 to 5 mils
Not to Exceed DFT:	7 mils

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Advanced Polymerics, Inc.  
10-12 Delaware Drive, Unit 1  
Salem, NH 03079

(603) 328-8177 - Phone  
(603) 328-8945 - Fax  
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# Siloxacorr™ Hydrophobic Siloxane

Two coats of **Siloxacorr™** as a self-priming system:

Primer Coat Recommended DFT Range: 3 to 5 mils  
Not to Exceed DFT: 7 mils

Second Coat Recommended DFT Range: 3 to 5 mils  
Not to Exceed DFT: 7 mils

## **APPLICATION:**

Apply by spray, using recommended equipment. Keep the spray gun perpendicular to surface being coated and at 18" to 24" distance from surface being coated. Apply multiple passes and overlap as needed to reach specified Wet Film Thickness.

## **DRYING AND RECOAT INTERVALS:**

With Air and Substrate temperatures at 70° F. and 50% R.H., 3 mil DFT film of **Siloxacorr™** are dry to the touch in 2 hours, recoat with itself in 3 hours and dry to handle in 4-1/2 hours.

With Air and Substrate temperatures at 85° F and 50% R.H., 3 mils DFT films of **Siloxacorr™** are dry to touch in 1 hour, recoat with itself in 2 hours and dry to handle in 3 hours.

There is no maximum interval for recoating **Siloxacorr™** with itself.

Lower temperatures and higher humidity will extend drying times. Good air circulation over newly coated surfaces speeds drying.

## **PRECAUTIONS:**

This product is for use only by professional applicators in accordance with information in this data sheet, API contractor training, and applicable SDS. Consult Safety Data Sheets for **Siloxacorr™ Hydrophobic Siloxane** and curing agent. Wear appropriate personal protective equipment when mixing and applying **Siloxacorr™**. Apply this product in accordance with all relative Federal, State and Local health, safety and environmental regulations and in compliance with all pertinent regulations as well as good safety practices and recommendations in SSPC PA-1, "Shop, Field and Maintenance Painting of Steel." Dispose of any spills, clean-up solvent, empty cans and other waste in compliance with all local guidelines and regulations.

## **WARRANTY:**

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## **Siloxacorr™ Hydrophobic Siloxane**

Advanced Polymerics, Inc. warrants that its products are free from defects in material and workmanship. Advanced Polymerics, Inc.'s sole obligation and buyer's exclusive remedy shall be limited to replacement of products not conforming to this warranty. Any claim for replacement product must be made within one year from the delivery date. Advanced Polymerics, Inc. makes no other warranties, expressed or implied, such as warranties of merchantability or fitness for a particular purpose. Advanced Polymerics, Inc. products are intended for Buyers with the knowledge and skills to evaluate the suitability of Advanced Polymerics, Inc. products for Buyer's intended use. In no event shall Advanced Polymerics, Inc. be liable for consequential or incidental damages.

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