HP-300 UV

Color-Stable Epoxy Coating System

Description

Advanced FRP Systems' **HP-300 UV** is a 100% solids, UV-stable, epoxy lining system designed to protect composite and metals from atmospheric corrosion and degradation from UV exposure. This hard, yet flexible and resilient coating system provides long-term performance in even the most aggressive atmospheric conditions. HP-300 UV is easy to apply via rollers or airless spray equipment and can offer protection in a single coat application, without need for a primer.

Product Advantages

- Zero VOC Coating system
- Outstanding adhesion to concrete, steel, masonry, wood and composites
- Excellent color and UV stability
- Easy to apply, low viscosity epoxy
- Long working time
- Moisture Tolerant epoxy
- Cures at temperatures as low as 50 °F

Suggested Application

This coating system is designed for application over areas with aggressive atmospheric corrosion conditions or immersion grade systems that require UV/color stability. Excellent one-coat alternative for aliphatic urethanes. Ask Advanced FRP for specific chemical resistances.

Performance Data

	Test Method	Results
Abrasion Resistance	ASTM D4060; CS17 wheel, 1 Kg	56.2 mg loss/1000 cycles
Adhesion to Composite	ASTM D4541	>2,000 psi
Heat Distortion Temperature	ASTM D648	141 °F
Direct Impact Resistance	ASTM D2794	116 in lbs
Immersion Resistance	Fresh and Salt water; 1 year	No rust, no blistering, no loss of adhesion
Humidity Resistance	ASTM D4585; 10,000 hours	No rust, no blistering, no cracking, no loss of adhesion
Dry Heat Resistance	ASTM D2485	250 °F (121 °C)

Product Characteristics

Finish: Satin

Color: Grey

Volume Solids: 100%

Mix Ratio (by wt.): 3.0:1

Mix Ratio (by vol.): 2.3:1

Density: 1.29 g/mL

Approx. Coverage: 160 sqft/gallon at 10 mils

Maximum Film Build: 15 mils per coat

Working Time: 55 minutes at 75 °F

Application Temperatures: 50 - 105 °F

HP-300 UV is sold in ½, 1, 2, and 4 gallon units. Other unit sizes may be available.

Sold FOB Weymouth, MA

Cure Schedule

Cures for Application	50 °F (10 °C)	75 °F (24 °C)	100 °F (38 °C)
Dry to Touch	24 hours	12 hours	8 hours
Dry Hard	72 hours	36 hours	24 hours
Overcoat Window	24 - 168 hours	12 - 120 hours	8 - 96 hours

Cures for Service	50 °F (10 °C)	75 °F (24 °C)	100 °F (38 °C)
Atmospheric	36 hours	24 hours	12 hours
Water Immersion	72 hours	36 hours	24 hours
Full Chemical Resistance	168 hours	120 hours	96 hours

Contact Advanced FRP Systems for elevated temperature post-cure information. Elevated temperature cures will increase chemical resistance and reduce return to service time.

Application Information

All Advanced FRP Systems products should be installed by a certified applicator or with direct oversight by Advanced FRP Systems, Inc. This data sheet provides general application guidelines for HP-300 UV.

Contact Advanced FRP Systems for more information if your project has detailed coating specifications.

Ensure air and substrate temperatures are between 50-105 °F and relative humidity is below 95%. Follow surface preparation guidelines below prior to coating.

Pour all of Part A – Hardener into Part B – Base and mix with low speed power agitator for 2-3 minutes. Using a paint stick or spatula, thoroughly scrape sides and bottom of unit. Mix with power mixer for an additional 2 minutes. Do not dilute Advanced FRP products.

HP-300 UV can be applied via brush, roller, conventional airless spray equipment or plural component, airless spray equipment. Consult Advanced FRP Application Guidelines for information on spraying **HP-300 UV**.

For application by roller or brush, **HP-300 UV** should be applied at 8 - 15 mils per coat. Composite substrates require 1 coat of **HP-300 UV** while concrete and metallic substrates require a minimum of 2 coats. Multiple coats may be applied to any substrate for added protection. Do not exceed a total film build of 50 mils DFT.

After the coating system has cured, the continuity of the coating should be verified. Visual inspection should be performed on composite substrate while dry film thickness should be measured by non-destructive dry film thickness gauges on metallic substrates. The coating system should be free of all pinholes and holidays. The cured film should be essentially free of runs, sags, inclusions, and other defects. All coating deficiencies should be repaired and allowed to cure prior to return to service.

Surface Preparation

Composites (Atmospheric Corrosion): Remove any loose coating then grind or sand the entire surface to be coated with a coarse grit sanding disc. Remove all dust with a SSPC-SP 1 Solvent Wipe or thorough vacuuming of the surface.

Steel (Atmospheric Corrosion): Remove all oil and grease from surface with an SSPC-SP 1 Solvent Wipe. Minimum surface preparation of SSPC-SP 2 Hand Tool Cleaning must be performed. For enhanced performance, an SSPC-SP 6 Commercial Blast Cleaning with an angular surface profile of 1.5+ mils should be used.

Concrete (Immersion/Secondary Containment): Refer to SSPC-SP 13/NACE No. 6, Section 4.3.1 or ICRI No. 310.2, CSP 1-3 for concrete preparation guidelines. Surface should be thoroughly cleaned and dry. Concrete and mortar must be cured at least 28 days @ 75 °F. Surface must be free of laitance, concrete dust, dirt, form release, curing aids and other foreign material. **Advanced FRP Sealer 200** should be applied prior to coating at 3-5 mils to increase adhesion and reduce outgassing.

Concrete (Atmospheric Corrosion): Refer to SSPC-SP 13/NACE No. 6, Section 4.3.1 or ICRI No. 310.2, CSP 1-3 for concrete preparation guidelines. **Advanced FRP Sealer 200** is not required but recommended for improved adhesion and aesthetics.

Previously Coated Surfaces: Consult with Advanced FRP to ensure previous coating is compatible. If compatible and previous coating is in good condition, remove all loose coating and foreign materials. Brush blast or grind all glossy areas to a uniform dull finish. Remove dust, oil and debris with SSPC-SP 1 Solvent Wipe prior to coating.

Storage and Shelf Life

HP-300 UV must be stored between 45 – 110 °F, out of direct sunlight. If stored in these conditions, the product will have a 24-month shelf life.

Safety Precautions

Please consult up-to-date Safety Data Sheets (SDS's) prior to use. An SDS should be available on site whenever Advanced FRP products are being used.

Warranty Information

Advanced FRP Systems, Inc. warrants that our products are free of manufacturing defects in accordance with applicable Advanced FRP quality control parameters. Liability for products proven defective, if any, is limited to replacement of defective product or refund of purchase price as determined by Advanced FRP Systems. Additional warranties and protection are available. Contact Advanced FRP for more information.

Disclaimer

The information and recommendations set forth upon this data sheet are based on years of laboratory and field analysis. This information is intended to be used as guidance only as many factors affect the performance of polymeric systems. Actual exposure conditions are the best test of suitability and Advanced FRP Systems will generally provide complimentary samples for field testing.

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