

FRP Tack Coat 110 HT

High-Strength Epoxy Adhesive

Description

Advanced FRP Systems' **FRP Tack Coat 110 HT** is a was engineered specifically for elevated temperature services up to 375 °F. It provides a high strength structural adhesive to permanently bond composite and laminate systems to the substrate being reinforced. Providing over 3,000 psi adhesion while chemically bonding to the structural composite, **Tack Coat 110 HT** is a strong, resilient anchor for your composite reinforcement.

Product Advantages

- Zero VOC Epoxy Adhesive
- Outstanding adhesion to concrete, steel, masonry, wood and composites
- Highly blush resistant formulation
- Excellent initial green strength
- Easy to apply with trowel or roller
- Ships DOT Non-Corrosive
- Moisture Tolerant epoxy
- Low Coefficient of Linear Thermal Expansion

Suggested Application

Tack Coat 110 HT is used to assist in application of reinforcing fabrics as well as adhering pre-cured laminate sheets to concrete, steel, masonry, or wood substrates. It was specifically engineered to maintain its structural properties up to 375 °F for elevated temperature services.

Performance Data

	Test Method	Results
Adhesion to Concrete	ASTM D4541	>750 psi
Adhesion to Steel	ASTM D4541	>3000 psi
Heat Distortion Temperature	ASTM D648	390 oF
Tensile Strength	ASTM D638	11,900 psi
Tensile Modulus	ASTM D638	634 ksi
Flexural Strength	ASTM D790	19,900 psi
Flexural Modulus	ASTM D790	677 ksi
Compressive Strength	ASTM D695	14,100 psi

Product Characteristics

Finish: High Gloss

Color: Red

Volume Solids: 100%

Mix Ratio (by wt.): 2.6:1

Mix Ratio (by vol.): 2.3:1

Density: 1.13 g/mL

Approx. Coverage: 80 sqft/gallon at 20 mils

Maximum Film Build: 30 mils per coat

Working Time: 25 minutes at 75 °F

Application Temperatures: 65 - 125 °F

FRP Tackcoat 110 HT 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)
Tacky Window	1 - 6 hours	30 min. - 3 hours	15 - 90 min.
Dry to Touch	10 hours	6 hours	3 hours
Dry Hard	48 hours	24 hours	12 hours
Overcoat Window	10 - 128 hours	8 - 96 hours	3 - 48 hours
Cures for Service	50 °F (10 °C)	75 °F (24 °C)	100 °F (38 °C)
Return to Service	N/A	24 hours	12 hours
Full Mechanical Strength	N/A	120 hours	72 hours

If Tack Coat 110 HT is no longer tacky enough to support reinforcing fabric, simply reapply another layer of Tack Coat 110 HT. No additional surface prep is required if within the overcoat window.

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 FRP Tackcoat 110 HT.

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

Ensure air and substrate temperatures are between 65 – 95 °F and relative humidity is below 85%. Follow surface preparation guidelines prior to coating.

Heavily pitted areas must be filled with **FRP Repair putty** or other Advanced FRP resurfacing material prior to applying composite reinforcements.

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 agitator for an additional 2 minutes. Do not dilute any Advanced FRP products.

Tack Coat 110 HT can be applied via brush, roller, or air assisted grout pump. Consult Advanced FRP Application Guidelines for information on spraying **Tack Coat 110 HT**.

Tack Coat 110 HT should be applied at 10 – 30 mils in a single coat or according to the specification for your project. A second coat can be applied if the material loses its tackiness prior to applying reinforcing fabric.

While **Tack Coat 110 HT** is required for vertical and overhead applications to hold the reinforcement in place, it will also increase the overall adhesion value of the composite reinforcement in all areas. We strongly recommend applying **Tack Coat 110 HT**, prior to applying reinforcement, over the entire substrate for optimal results.

Surface Preparation

Composite reinforcement requires a smooth surface without gaps and voids for full effectiveness. Use **FRP Repair Putty** or **Ceramic Repair Putty** to fill any holes, voids, and smooth weld seams.

Steel (Wet/Dry Layup): 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 (Wet/Dry Layup): Refer to SSPC-SP 13 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**, penetrating concrete primer, is recommended to increase adhesion and strengthen concrete prior to installing reinforcement.

Concrete (Pre-cured laminates): Refer to SSPC-SP 13 or ICRI No. 310.2, CSP 1-3 for concrete preparation guidelines. Surface must be free of laitance, concrete dust, dirt, form release, curing aids and other foreign material. Surface should be dry or slightly damp with no standing water or frost. **Advanced FRP Sealer 200**, penetrating concrete primer, can be used prior to applying laminate strips to strengthen concrete and increase overall adhesion. The adhesive strength of the concrete must be verified after surface preparation by random pull-off testing (ACI 503R) at the discretion of the engineer. Minimum tensile strength, 200psi (1.4 MPa) with concrete substrate failure.

Storage and Shelf Life

FRP Tack Coat 110 HT must be stored between 45 – 110 °F, out of direct sunlight. If stored in these conditions, the product will have a 12-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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