

Repair Putty HT

High-Temperature Epoxy Repair Putty

Description

Advanced FRP Systems' **Repair Putty HT** is a 100% solids, immersion grade epoxy repair putty designed specifically for elevated temperature exposure. This system was engineered maintain its hardness and chemical integrity at temperatures up to 375 °F. **Repair Putty HT** can be applied via trowel at up to 250 mils in a single coat. It provides excellent adhesion to a wide range of substrates and can be used as a load transfer material for composite repairs according to ASME PCC-2 (2015).

Product Advantages

- Excellent chemical resistance
- Outstanding adhesion to concrete, steel, masonry, wood and composites
- Service temperatures up to 375 °F
- Long overcoat windows
- Zero VOC, 100% Solids system
- Can be applied up to ¼ inch thickness
- Cures at temperatures as low as 55 °F

Suggested Application

Repair Putty HT is an excellent choice for covering weld seams and filling in pits prior to application of a high temperature coating. **Repair Putty HT** is recommended for resurfacing substrates that will be exposed to elevated temperatures, prior to application of composite reinforcement systems. Contact Advanced FRP Systems for specific chemical resistance data.

Performance Data

	Test Method	Results
Adhesion to Concrete	ASTM D4541	>750 psi
Adhesion to Steel	ASTM D4541	>3000 psi
Heat Distortion Temperature	ASTM D648	396 °F
Tensile Strength	ASTM D638	9,200 psi
Tensile Modulus	ASTM D638	472 ksi
Flexural Strength	ASTM D790	11,900 psi
Flexural Modulus	ASTM D790	521 ksi
Compressive Modulus	ASTM D695	477,000 psi

Product Characteristics

Finish: High Gloss

Color: Light Red

Volume Solids: 100%

Mix Ratio (by wt.): 2.8:1

Mix Ratio (by vol.): 2.7:1

Density: 1.41 g/mL

Approx. Coverage: 20 sqft/gallon at 80 mils

Maximum Film Build: 250 mils

Working Time: 50 minutes at 75 °F

Application Temperatures: 55 - 105 °F

Repair Putty HT is sold in 10 x 1 kg packs and ½, 1, and 2 gallon kits 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	14 hours	8 hours	4 hours
Dry Hard	36 hours	24 hours	12 hours
Overcoat Window	14 - 168 hours	8 - 120 hours	4 - 72 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	48 hours	36 hours	24 hours
Full Chemical Resistance	168 hours	120 hours	72 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 Repair Putty HT.

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

Ensure air and substrate temperatures are between 45-105 °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 agitator for an additional 2 minutes. Do not dilute Advanced FRP products.

Repair Putty HT has the consistency of a thick putty or spackling compound. It should be applied with a trowel, notched trowel, or a plastic applicator.

Stripe coating of all crevices, weld seems, corners and sharp angles is an essential part of good coating practices and should be done for all immersion services. Heavily pitted areas should be filled with **Repair Putty HT** or other Advanced FRP resurfacing material prior to coating.

Repair Putty HT is designed to be applied up to 250 mils in a single coat. It can be worked into deep pits and gouges, can be used to bury weld seems, and resurface worn or corroded concrete.

After the coating system has cured, the dry film thickness should be measured by non-destructive dry film thickness gauges to verify minimum application thickness. The coating system should be free of all pinholes and holidays which can be tested through high voltage spark testing. 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

Steel (Immersion Service): Remove all oil and grease from surface with an SSPC-SP 1 Solvent Wipe prior to blasting. Abrasive Blast to an SSPC-SP 10 Near white metal blast with a sharp angular profile of 2 – 3 mils (50 – 75 microns).

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

Repair Putty HT 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.

Revision Date: 03/2018