

# FRP Repair Putty

## High-Build Epoxy Repair Putty

### Description

Advanced FRP Systems' **FRP Repair Putty** is a 100% solids, immersion-grade epoxy repair putty. This system was engineered to provide excellent adhesion to a wide range of substrates. **FRP Repair Putty** is very applicator friendly with long overcoat windows and a formulation designed not to blush even under extreme conditions. This trowel applied material can hang up to ½ inch without sagging for convenient vertical and overhead applications.

### Product Advantages

- Amine Blush resistant formulation
- Outstanding adhesion to concrete, steel, masonry, wood and composites
- Ships DOT Non-Corrosive
- Long overcoat windows
- Zero VOC, 100% Solids system
- Can be applied up to ½ inch thickness
- Cures at temperatures as low as 45 °F

### Suggested Application

**FRP Repair Putty** is an excellent choice for covering weld seams and filling in pits prior to application of a protective coating. It is also used as a build coat between layers of HP-300 for hot water immersion service. **FRP Repair Putty** is also recommended for resurfacing substrates prior to application of composite reinforcement systems. Contact Advanced FRP Systems for 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	155 °F
Tensile Strength	ASTM D638	7,600 psi
Tensile Modulus	ASTM D638	398 ksi
Flexural Strength	ASTM D790	13,800 psi
Flexural Modulus	ASTM D790	502 ksi
Compressive Modulus	ASTM D695	455,000 psi

### Product Characteristics

**Finish:** High Gloss

**Color:** Light Red

**Volume Solids:** 100%

**Mix Ratio (by wt.):** 1.6:1

**Mix Ratio (by vol.):** 1.5:1

**Density:** 1.44 g/mL

**Approx. Coverage:** 20 sqft/gallon at 80 mils

**Maximum Film Build:** 500 mils

**Working Time:** 35 minutes at 75 °F

**Application Temperatures:** 45 - 105 °F

**FRP Repair Putty** 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 FRP Repair Putty.**

**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.

**FRP Repair Putty** 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 **FRP Repair Putty** or other Advanced FRP resurfacing material prior to coating.

**FRP Repair Putty** is designed to be applied up to 500 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

**FRP Repair Putty** 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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