

Milliken Infrastructure

RenewWrap™ EZ Paste

Non-Sag Epoxy Repair and Surface Smoothing Paste



BRIDGES + ROADWAYS



BUILDINGS + PARKING FACILITIES



OIL, GAS + INDUSTRIAL

RenewWrap™ EZ Paste is a two-component, moisture insensitive, high modulus, high strength, non-sag epoxy paste used to fill bug holes and other small voids and smooth substrate surfaces prior to application of the RenewWrap FRP strengthening system. The material can easily be troweled on vertical and overhead surfaces.

Benefits

- Simple 1:1 mix ratio
- Can be used in temperatures between 40 °F and 110 °F (4 °C and 43 °C)
- Compatible with RenewWrap™ FRP strengthening systems
- High-build and easily trowelable
- Hi-mod formula cures stronger than concrete
- Cost efficient

Limitations

- Do not thin with solvents, as this will prevent cure
- New concrete should be a minimum of 21 days old
- Not intended for repairing cracks subject to movement; repairs should be made to the cracked element to eliminate the cause of the cracking prior to usage

Surface Preparation

Old concrete must be clean and profiled or textured. Remove all dirt, oil, debris, wax grease or dust. New concrete should be a minimum of 21 days old. Prepare the surface by rough-grinding, scarifying, bush hammering or by using other equipment that will give a roughened profile. A roughened surface is imperative for good adhesion. Always be sure the bonding surfaces are prepared in advance before mixing product. Mix only enough RenewWrap EZ Paste that can be used within the workable time or pot life.

Bulk Mixing Instructions

When the work environment or substrate falls below 70 °F (21 °C) condition the product to 70 - 75 °F (21 - 24 °C) prior to use. Thoroughly stir Part B with a Jiffy mixing paddle or similar before mixing Parts A and B together. NOTE: Cold product may become too thick. Product that is too warm will react much faster than normal.

- 1) Place the total contents of Part "B" (hardener) into the Part "A" pail (resin) OR proportion equal parts by volume of both Part "A" and Part "B" into a clean pail. Be sure that the components are mixed at an exact 1:1 ratio by volume.
- 2) Mix thoroughly with a low speed drill (400 - 600 rpm) with a Jiffy mixing paddle or similar. Carefully scrape the sides and the bottom of the container while mixing. Keep the paddle below the surface of the material to avoid entrapping air. Proper mixing will take at least 3 minutes and when well mixed the material will be free of streaks or lumps.
- 3) Mix only the amount of material that can be used before the pot life expires.

Typical Uses

Recommended for:

- High-build, non-sag patching material for filling spalls and bug holes
- Use to level or smooth substrate surface prior to application of RenewWrap™ FRP strengthening systems
- May be used as a bonding agent for concrete and masonry

Packaging

3-gallon kits

Storage and Shelf Life

Store in a dry place at 40-90 °F (4-32 °C) out of direct sunlight. Material has a shelf life of 24 months when stored in unopened containers.

Clean Up

Store in a dry place at 40-90 °F (4-32 °C) out of direct sunlight. Material has a shelf life of 24 months when stored in unopened containers.

Caution

Product safety data sheets (SDS) should be consulted during application of or when handling the product.

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Physical Properties

PROPERTY	VALUE	METHOD
Color	Part A (resin): White Part B (hardener): Dark Gray Mixed: Light Gray/Light Beige	
Mix Ratio	1:1 by volume	
Consistency (Viscosity)	Non-sag	ASTM C881
Heat Deflection Temperature (7 days at 75 °F)	138 °F (59 °C)	ASTM D648
Gel Time - 60-gram mass		ASTM C881
@ 40 °F (4 °C)	224 minutes	
@ 55 °F (13 °C)	230 minutes	
@ 75 °F (24 °C)	68 minutes	
Pot Life ¹		
@ 75 °F (24 °C)	18 minutes	
Tack-Free or Open Time		ASTM D2377
@ 75 °F (24 °C)	2-3 hours	
Working Time ²		
@ 40 °F (4 °C)	36 minutes	
@ 75 °F (24 °C)	20 minutes	
@ 110 °F (43 °C)	12 minutes	
Cure Time		
@ 75 °F (24 °C)	24 hours	

1) Pot life is measured as the workable and applicable time of 102 fl. oz. (3.0 L) when mixed at 75 °F (24 °C). Pot life lengthens to 21 minutes when mixed in a 500-gram mass @ 75 °F (24 °C).

2) Working and cure times are approximate and may vary slightly based on substrate temperatures and the temperature product was conditioned at prior to application.

Mechanical Properties

PROPERTY	VALUE	METHOD
Compressive Yield Strength ¹	13,850 psi (95.5 MPa)	ASTM D695
Compressive Modulus ¹	743,300 psi (5,125 MPa)	ASTM D695
Tensile Strength ¹	3,600 psi (25 MPa)	ASTM D638
Tensile Elongation ¹	0.4%	ASTM D638
Bond Strength Hardened to Hardened Concrete ²	2,180 psi (18.1 MPa)	ASTM C882
Bond Strength Hardened to Hardened Concrete ³	2,630 psi (15.0 MPa)	ASTM C882
Bond Strength Fresh to Hardened Concrete ³	1,960 psi (13.5 MPa)	ASTM C882
Bond Strength Fresh Concrete to Steel ³	1,890 psi (13.0 MPa)	ASTM C882

1) Reported properties are based on conditioning at 75 °F (24 °C) for 7 days.

2) Reported properties are based on conditioning at 75 °F (24 °C) for 2 days.

3) Reported properties are based on conditioning at 75 °F (24 °C) for 14 days.

Before using any Milliken Infrastructure Solutions, LLC product, the user must review the most recent version of the product's technical data sheet, material safety data sheet and other applicable documents, available at www.strengtheningsolutions.milliken.com or by calling 1-855-655-6750. LIMITED WARRANTY: Milliken Infrastructure Solutions, LLC is very proud of our innovative RenewWrap™ products (the "Products") and our superior customer service. We hereby warrant to the original purchaser that the Products meet Milliken's standard specifications at the time of delivery from us. If the Products are found to be defective because they do not meet this Warranty, then we will as the sole remedy either (at our option) refund the purchase price for those Products or provide replacement Products (in either case, not including shipping, installation or any other cost). Naturally, we are not responsible or liable for degradation, damage, liability or defect in, or related to, the Products caused by improper storage, use, installation or maintenance, any other party's representations, warranties, actions, or omissions, or acts of God. WE MAKE NO REPRESENTATION OR WARRANTY BEYOND THE EXPLICIT STATEMENTS CONTAINED IN THIS WARRANTY, AND ALL OTHER EXPRESS AND IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, INFRINGEMENT, OR ANY WARRANTIES BASED UPON SAMPLES, MODELS, OR SPECIFICATIONS, ARE HEREBY EXPRESSLY DISCLAIMED. NOTWITHSTANDING ANYTHING TO THE CONTRARY, IN NO EVENT SHALL WE BE LIABLE TO THE ORIGINAL PURCHASER OR ANYONE ELSE FOR ANY CONSEQUENTIAL, INDIRECT, SPECIAL, OR EXEMPLARY (OR ANY SIMILAR TYPE OF) DAMAGES RELATED TO THE PRODUCTS. As each customer's use of our Products and situation may be different, information we provide, including without limitation, use or installation suggestions, test results, samples, etc. is provided in good faith but without warranty and without accepting any responsibility or liability. Each customer must test and be responsible for its own specific use, installation, application, etc. All sales are exclusively subject to our standard terms of sale posted at www.milliken.com/terms (all additional/different terms are rejected) unless explicitly agreed otherwise in a signed writing. This Warranty is governed by the laws of the United States and the State of South Carolina, U.S.A. (without giving effect to its conflict of law principles), and any party desiring to take action under this Warranty hereby submits to the exclusive jurisdiction of the courts in such jurisdiction and waive any inconvenient forum claims related thereto. In the unlikely event that you have a warranty issue, please contact your distributor or sales representative to discuss and resolve the matter in accordance with this Warranty.

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