



TYFO[®] EZ PASTE

DESCRIPTION

Tyfo EZ Paste is a two-part adhesive used to fill bug holes, fill other small voids, and smooth substrate surfaces prior to application of Tyfo strengthening systems. Tyfo EZ Paste can be used to install Tyfo Ti NSM bars in near surface mounted (NSM) applications on vertical or overhead surfaces.

- Meets requirements of ASTM C881, Type I, II, IV, and V, Grade 3, Class B, and C.
- Complies with Fyfe Ti NSM Bars Strengthening Specification.

USE

- Non-sag adhesive to install Tyfo Ti NSM bars in vertical or overhead applications
- Patching adhesive used to fill bug holes or other small voids
- Use to level substrate surface intended to be strengthened using Tyfo systems

ADVANTAGES

- Simple 1:1 mix ratio (by volume)
- Moisture insensitive
- High strength, high modulus
- Non-sag adhesive
- Can be used in an ambient/substrate temperature range of 40-110 °F (4-43 °C)

LIMITATIONS

- Do not thin with solvents
- New concrete should be a minimum of 21 days old prior to application
- Product not intended to repair cracks subject to movement; repairs should be made using another method

PACKAGING

- 3-gallon kit
- Two-parts (Part A: 1.5-gallon; Part B: 1.5-gallon)

SHELF LIFE AND STORAGE

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.

CONSUMPTION RATE

Mix Ratio - 1:1 (by volume) Average coverage of 1,300 square feet per three gallon kit

EZ Paste Physical Properties				
*Performance to ASTM C881				
Property	ASTM Method			
Mix Ratio		Part A - Resin Part B - Hardener	1:1 (by volume)	
Color		Part A Part B Mixed	White Dark Grey Light Grey/ Light Beige	
Consistency (Viscosity)	C881	Part A Part B Mixed	Non-Sag	
Heat Deflection (7 days at 75°F)	D648	127°F (53°C)		
Sample Conditioning Temperature				
		40°F (4°C)	55°F (13°C)	75°F (24°C)
Gel Time - 60 gram mass	C881	63 minutes	47 minutes	32 minutes
Pot Life ^{1,2}	-	14 minutes		
Tack-Free or Open Time ¹	D2377	-	-	2-3 hours
Working Nozzle Time ³	D2377	-	-	45 minutes
Cure Time ³	D2377	-	-	24 hours

¹Property not referenced in ASTM C881.

²Pot 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 18 minutes when hand mixed or mixed in a 500-gram mass @ 75 °F (24 °C).

³Working and cure times are approximations and may vary slightly based on substrate temperatures and the temperature at which the adhesive was conditioned to prior to application. Working and cure times are based on 75 °F base material temperature and are dependent on cartridge/nozzle system performance.

EZ Paste Mechanical Epoxy Material Properties				
Property	ASTM Method	Units	Value	
Compressive Yield Strength ¹	D695		13,100 (90.3)	
Compressive Modulus ¹			psi(MPa)	748,100 (5,158)
Tensile Strength ¹	D638		5,480 (38)	
Tensile Elongation ¹			%	1.4
Bond Strength Hardened to Hardened Concrete	C882		@2 Days ²	@14 Days ³
			3,180 (21.9)	3,980 (27.4)
Bond Strength Fresh to Hardened Concrete			psi(MPa)	-
Bond Strength Fresh Concrete to Steel		psi(MPa)	-	1,970 (13.6)

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

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

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

INSTALLATION OF THE TYFO® NSM EZ PASTE

BULK MIXING INSTRUCTIONS

If the work environment and/or the substrate to be strengthened falls below 70 °F (21 °C), condition the product to 70 - 75 °F (21-24 °C) prior to application. Thoroughly stir Part B using a Jiffy Mixer paddle or similar before combining Part B with Part A.

NOTE: Product that is too cold may become too thick and product that is too warm will react much faster than typically expected. The above temperature conditions also apply to cartridge preparation.

1. Either place Part B pail contents into Part A pail or proportion equal parts by volume of both Part A and Part B into a clean pail. Be sure that Part A and Part B are being mixed at a 1:1 ratio by volume.
2. Mix proportioned Part A and Part B thoroughly using a Jiffy Mixer paddle, or similar, attached to a low speed drill. Mix at approximately 400-600 rpm.
3. Mix the amount of product needed while also keeping pot life in mind.

SURFACE PREPARATION

- Old concrete must be clean and profiled or textured
- Prepare the surface by using any method capable of providing a roughened texture such as rough-grinding, scarifying, bush hammering, etc.
- Remove all dirt, oil, debris, wax grease or dust.
- Mix enough Tyfo EZ Paste while keeping in mind the workable time or pot life.

DESIGN

The Tyfo Ti NSM Bar system is designed to meet specific project criteria dictated by the engineer of record and any relevant building codes and/or guidelines. The design shall be based on the quantified performance goals defined for each project. FyfeFRP LLC engineering staff may provide preliminary details based on the project requirements.

INSTALLATION

Cut grooves for NSM Bars once the layout specified by the Engineer of Record is marked. The dimensions of the groove are typically 1.5 times the bar diameter in both the depth and width.

Note: Proper equipment such as diamond crack chasing blades, guide rails, and sufficient power tools will make cutting grooves easier. It is recommended to cut parallel saw cuts, then remove concrete rather than cut the groove in a single pass.

CLEANING

No sharp points or rough edges of concrete should be left in the groove, use a chisel if needed. Clean the groove by using compressed air or a vacuum to remove any residual dust.

Note: No roughening to the concrete surface within the groove is necessary.

TYFO EZ PASTE

Mask the perimeter of the groove to ensure the surface remains clean when applying paste. Fill the groove with Tyfo EZ Paste until it is approximately half - to three-quarters - way full.

TYFO Ti NSM BAR

Press the Tyfo Ti NSM bar into the Tyfo EZ Paste that was applied in the previous step. The goal is to have the NSM bar fully coated by the EZ Paste with no air pockets.

FINISHING

Finish the installation by applying a final coat of Tyfo EZ Paste to completely cover the groove. Use a trowel or putty knife to level the surface and remove the masking.

Note: Be sure to remove masking prior to the EZ Paste curing.

CAUTION!

CLEAN UP

Always wear appropriate personal protective equipment such as safety glasses and gloves. Clean materials used for mixing and application using a mild solvent prior to adhesive curing.

HAZARDS

Consult the Safety Data Sheets (SDS) for associated hazards. SDS will be supplied upon request.

Consult safety data sheet
(SDS) for more information.
For industrial use only.

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