

DESCRIPTION

The Tyfo[®] TC Epoxy is a two-component, solvent-free epoxy tack coat for improved adhesion to vertical and overhead surfaces. The Tyfo[®] TC Epoxy is an NSF/ANSI Standard 61-G listed product when combined with the Tyfo systems.

USE

For use as a tack coat in applications where Tyfo[®] S will not provide adequate adhesion between the fabric and substrate. Typical examples for use are overhead or vertical surfaces, horizontal or vertical surfaces where excellent adhesion to a substrate is necessary. Tyfo[®] TC can also be used to improve the bond between successive reinforcement layers.

ADVANTAGES

- NSF/ANSI Standard 61-G listed product
- Good high and low temperature properties
- Excellent adhesive properties
- 100% solids, solvent-free
- 1-2 hour working time
- High elongation
- Ambient cure

PACKAGING

Pre-measured 5-gallon units with a combined material volume of 2.7 gallons.

EPOXY MIX RATIO

100A : 23.3B by weight
100A : 28.0 B by volume

COVERAGE

50 sq. ft per gallon at a thickness of 32 mils. Coverage is highly dependent on substrate condition.

SHELF LIFE

Two years in original, unopened and properly stored containers.

STORAGE CONDITIONS

Store epoxy at 60°F to 100°F (15°C to 38°C). Resin is susceptible to crystallization at temperatures below 50°F. If crystallized, epoxy must be reheated until clear. Avoid moisture and water contamination.

EPOXY MATERIAL PROPERTIES

Material properties are based on standard laboratory conditions (23°C, 50 percent relative humidity).

PROPERTY	TYPICAL TEST VALUE	
Net Weight	Component A	20.4 lbs. (2.15 gal)
	Component B	4.75 lbs. (0.6 gal)
	Mixed	25.1 lbs. (2.75 gal)
Color	Component A	beige paste
	Component B	clear to yellow
	Mixed	beige paste
Viscosity	Component A	180,000 cps
	Component B	11 cps
	Mixed	55,000 cps
Density (D792) Pounds/Gallon	Component A	9.5 (1.14 kg/L)
	Component B	8.0 (0.96 kg/L)
	Mixed	9.1 (1.09 kg/L)
Pot Life (Working Time)	Mixed	1 to 2 hours
Gel Time (Time to Gelation)	Mixed	4 hours

EPOXY MATERIAL PROPERTIES

Cure schedule: 72 hour post-cure at 140°F (60°C)¹

PROPERTY	ASTM METHOD	TYPICAL TEST VALUE
Glass Transition Temperature, T _g	D4065 E1356	160°F (71°C)
Tensile Strength	D638 Type 1	3,285 psi (22.7 MPa)
Tensile Modulus		174,000 psi (1.2 GPa)
Elongation		1.88%
Compressive Strength	D695	4,080 psi (28.0 MPa)
Flexural Strength	D790	6,640 psi (45.8 MPa)
Flexural Modulus		178,000 psi (1.23 GPa)
Single Lap Shear Strength	D3165	2,800 psi (19.3 MPa)
Adhesion Strength ² Concrete (ASTM D7522) Steel Epoxy	D4541	>400 psi (concrete failure typ.) >3000 psi >1200 psi

¹ Testing temperature: 73°F (23°C).

² Adhesion strength dependent on surface preparation and substrate thickness. Cure schedule: 7 days at 73°F (23°C).

HOW TO USE THE TYFO® TC EPOXY

INSTALLATION

The Tyfo® system is to be installed by Fyfe Co. LLC trained and certified applicators.

SURFACE PREPARATION

The required surface preparation is dependent on the type of element being strengthened. In general, the surface must be clean, dry and free of protrusions or cavities to prevent voids behind the Tyfo® system. Concrete and Masonry surfaces require a minimum CSP-2 profile to prepare for bonding, achieved by light sandblast, grinding or other approved methods per ICRI 310.2R-2013. Steel surfaces shall be prepared to near white metal per NACE/SSPC SP10. Coating can be applied over the Tyfo® systems immediately or within 72 hours of application without any surface preparation. Otherwise, lightly abrade composite surface prior to application. Fyfe Co. LLC engineering staff will provide the proper specifications and details based on project requirements.

MIXING TYFO® TC EPOXY

For pre-measured units in 5-gallon containers, pour the contents of component B into the component A container. Mix thoroughly with a low speed mixer at 400 to 600 RPM until uniformly blended. Ensure epoxy is transferred between the A and B buckets. Resin may be heated to achieve desired viscosity [i.e. radiant heating, drum heaters, water bath]. DO NOT THIN. Solvents will prevent proper cure.

APPLICATION

Tyfo® TC Epoxy is applied by trowel, brush or roller. Please refer to Fyfe Co.'s NSF Listing for the NSF 61-G listed application method (www.NSF.org).

LIMITATIONS

Recommended substrate temperature range is 50°F to 100°F (10°C to 38°C). All coating applications to be performed at a minimum of 5.4°F above the dew point. Maintain conditions for the first 48 hours of cure. Temperatures below 50°F will significantly increase the viscosity of the mixed product. Higher viscosity will reduce coating penetration, introduce additional air into the system, and extend the cure times beyond 48 hours. DO NOT THIN. Solvents will prevent proper cure.

CAUTION!

CLEANUP

Collect with absorbent material. Dispose in accordance with local disposal regulations. Uncured material can be removed with approved solvent. Cured materials must be removed mechanically.

HAZARDS

Consult the Safety Data Sheets (SDS) for associated hazards. SDS will be supplied upon request. Component A is a marine pollutant. Component B is a corrosive material.

CONSULT SAFETY DATA SHEET (SDS) FOR MORE INFORMATION. FOR INDUSTRIAL USE ONLY.



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