FYFE Co. LLC
Tyfo® Fibrwrap® Systems

Tyfo® PR Adhesive
for the Tyfo® PR System

DESCRIPTION
The Tyfo® PR Adhesive is a two part, 100% solids, low odor, 1:1 mix ratio, moisture insensitive epoxy resin compound with a non-sag, paste consistency.

USES
Dowel bar, anchor bolt & Re-Bar adhesive, hardened concrete adhesive, vertical and overhead applications, rigid pick-proof sealant for windows, doors, joints, and more. Capseal for crack injection and repair of concrete defects.

ADVANTAGES
- High Strength
- High Modulus
- Provides Load Transfer
- Virtually No Odor
- 1:1 Mix Ratio
- Outstanding Adhesion to Concrete
- Moisture Insensitive
- Non-Sag Paste

COMPLIANCE
Tyfo® PR Adhesivemeets or exceeds the following standards:
- ASTM C881-90, Type 1, II, IV & V Grade 3, Class B & C
- AASHTO M-235

COVERAGE
For anchoring, 1 neat gal yields 231 cu.in. of grout. 1 gal neat with 1 gal dry 20/40 mesh silica sand will yield approximately 410 cu. in. of mortar. Coverage will vary depending on surface texture, porosity and temperature.

PACKAGING
Single Cartridge, 4 gallon case, 10 gal. unit.

SHELF LIFE
Two years, unopened in proper storage.

STORAGE CONDITIONS
Store casing at 50° to 90° F (10° to 32° C). Avoid freezing. Protect from moisture.

CERTIFICATE OF COMPLIANCE
- Will be supplied upon request, complete with state and federal packaging laws with copy of labels used.
- Material safety data sheets will be supplied upon request.
- Possesses 0% V.O.C. level.

MATERIAL PROPERTIES

Color, Part A	Lt. Gray
Color, Part B	Tan
Color (Mixed)	Lt. Gray
Solids	100
Mixing Ratio (Parts A:B) by volume	1:1
Gel Time, mins	10
Consistency	Non Sag Paste
Compressive Strength (ASTM D695), psi	
7 days (neat resin), minimum	10,450
Tensile Properties (ASTM D638)	
Ultimate Strength @ 14days, psi	7,150
Elongation at break, %	2.5
Water Absorption (ASTM D570)	
7 day, 24-hour immersion, %	0.31

Data presented is typical laboratory values.

HOW TO USE THE TYFO® PR SYSTEM

DESIGN
The Tyfo® PR System shall be designed to meet specific design criteria. The criteria for each project is dictated by the engineer of record and any relevant building codes and/or guidelines. The design should be based on the allowable strain for each type of application and the design modulus of the material. The Fyfe Co. LLC engineering staff will provide preliminary design at no obligation.

INSTALLATION
Tyfo® PR System to be installed by Fyfe Co. LLC trained and certified applicators. Installation shall be in strict compliance with the Fyfe Co. LLC Quality Control Manual.

SURFACE PREPARATION
Concrete: The surface must be structurally sound, dry, free of grease, oils, coatings, dust, curing compounds and other contaminants. Surface laitance must be removed. The preferred method of surface preparation is abrasive blasting or other mechanical means. Oil contaminated surfaces should be degreased. Remove defective concrete, honeycombs, cavities, joint cracks, voids and other defects by routing to sound material. Following surface preparation, the cleaned surface should pull concrete when tested with a pull tester, or an elcometer (ASTM D4541).

Steel: All oils, greases, dirt, old coatings and chemical contaminants must be removed. The surface should be blasted to a near white metal finish (SSPC SP10) using clean dry aggregate.

The Fyfe Co. LLC engineering staff will provide the proper specifications and details based on the project requirements.

APPLICATION
Application and surface temperatures should be at least 40°F and rising.

Bonding hardened to hardened concrete: Apply mixed by spatula, brush or trowel. Ensure the surfaces to be joined have uniform coatings of . For optimum results the bond line should not exceed 1/8 inch. Join surfaces and hold or clamp firmly. Ideally a small amount of adhesive should exude from the joint. Surfaces must be mated while the adhesive is still tacky.

Bonding anchor bolts, dowels, pins: can be used neat or with an aggregate to anchor horizontal boits. The anchor bolt hole should be free of ail debris before gouting. The optimum hole size is 1/8" inch annular space or 1/4" larger diameter than bar diameter. Depth of embedment Is typically 10-15 times bolt diameter.

Vertical and Overhead Repairs: Apply neat as a scrub coat to the prepared concrete surface. Mix the mortar epoxy mortar and apply to the area by trowel or spatula in lifts of 1 to 1¹/a inch. Allow each lift to reach initial set set before applying subsequent lifts.

Capseal & Set Ports for Pressure Injection: Place a small amount of the mixed to the back of the port and carefully place over the crack. Be careful to not fill the hole of the injection port. Place neat mixed to the cracks to be pressure injected and around each injection port. Allow sufficient cure time before pressure injection.

CLEANUP

Clean tools and application equipment immediately after use with methyl ethyl ketone, or xylene. Clean overspray or drips while still wet with solvent. Dried will require mechanical abrasion for removal.

CAUTION!

SAFETY PRECAUTIONS

Component "A": Contains epoxy resin. Vapors can cause respiratory irritation. Skin and eye irritant. Can cause sensitization after prolonged or repeated exposure. Use of safety goggles and chemical resistant gloves is recommended. Use only with adequate ventilation.

Component "B": Is corrosive. Contains amines. Contact with eyes or skin may cause severe burns. Can cause sensitization after prolonged or repeated use. Use of safety goggles and chemical resistant gloves is highly recommended. Use only with adequate ventilation.

First Aid: In case of skin contact, wash immediately and thoroughly with soap and water. For eye contact, flush immediately with plenty of water for at least 15 minutes. Consult physician immediately. For respiratory problems, remove person to fresh air. Disposal: Collect with absorbent material. Dispose of in accordance with current local, state and federal regulations.

SHIPPING LABELS CONTAIN

- State specification number with modifications, if applicable
- Component designation
- Type, if applicable
- Manufacturer's name
- Date of manufacture
- Batch name
- State lot number, if applicable
- Directions for use
- Warnings or precautions by law

CONSULT MATERIAL SAFETY DATA SHEET (MSDS) FOR MORE INFORMATION.
KEEP OUT OF REACH OF CHILDREN.
FOR INDUSTRIAL USE ONLY.

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