



TuffPoxy™ 5

Concrete Bonder, Hi-Mod MV Epoxy

1.01 DESCRIPTION

TuffPoxy™ 5 is a two-component, multi-purpose, high modulus, moisture tolerant, epoxy-bonding adhesive that meets the requirements of ASTM C-881, Type I, II, IV & V grade 2, classes B&C. TuffPoxy™ 5 is 100% solids, solvent-free, medium viscosity bonder. Please use the correct product grade that complies with VOC regulations as per federal, state, county and city regulations/codes at the place of installation of product.

1.02 USES

- Anchors Bolts, Dowels, and Reinforcing Steel
- Bonds Fresh Concrete to Hardened Concrete
- Bonds Steel to Fresh Concrete
- Gravity Filling Cracks in Concrete

1.03 FEATURES

- Chemical Resistant Bonding
- Exceptional One Day and Ultimate Compressive
- Extremely Durable Bonds
- Fast Setting

1.04 TECHNICAL DATA

ASTM C-881, Type I, II, IV & V grade 2, classes B&C

1.05 PACKAGING

20 oz., 600 ml side-by-side cartridge

1 gallon (3.8 liters) units

2 gallon (7.6 liters) units

10 gallon (37.9 liters) units

1.06 COLOR

Concrete Gray

1.07 COVERAGE

TuffPoxy™ 5 should be applied at the rate of 80 sqft/gallon or 1 1/4 gallons/100 sqft (0.51 liters/sqm), or approximately 20 mils (508 microns) in thickness.

1.08 PREPARATION

Remove all dirt, oil, and loose or foreign material. Any metal in contact with grout must be free of rust, oil, grease, and other foreign matter which would limit bond. Concrete surface must be sound and roughened to ensure proper bonding. Prior to placing epoxy, the surface must be saturated surface dry (SSD), if possible for an hour.

1.09 MIXING

TuffPoxy™ 5 is ready to use, do not thin with any solvents. Air, material and surface temperatures must be a minimum of 40° F (4°C) prior to mixing or installation. Premix each component separately, then mix 1 part of Side A with 1 Side B for three minutes with a low-speed drill motor using a Jiffy mixer or paddle. Mix only as much material as can be used within the pot life.

1.10 APPLICATION

As a structural adhesive, and bonding fresh concrete to hardened concrete, neatly apply the TuffPoxy 5 into the substrate with a brush, roller, or by spraying. TuffPoxy™ 5 should be applied at the rate of 80 sqft/gallon or 1 1/4 gallons/100 sqft (0.51 liters/sqm), or approximately 20 mils (508 microns) in thickness. While tacky, place the fresh concrete. If the TuffPoxy™ 5 is no longer tacky, remove any surface dirt or contaminants and apply another coat of product.

1.11 DRY OR USE TIME

Approximately 2 hours at 70°F (21°C) for recoating or light traffic. Wait 12 hours for heavy traffic. Dry time is temperature, humidity, and wind dependent.

1.12 CLEANUP

Clean sprayer, tools, and equipment with Xylene or lacquer thinner while the product is still wet.

1.13 STORAGE AND SHELF LIFE

Store in a horizontal position to prevent moisture accumulation on the drum head. The material should be stored between 40–95°F (4–35°C) in a cool, dry area away from direct sunlight. The shelf life of properly stored, unopened container is 12 months from the date of manufacture. An excessive temperature differential and/or high humidity can shorten the shelf life expectancy.

1.14 LIMITATIONS

DO NOT place at temperatures below 40°F (5°C) unless special provisions are followed. At low temperatures, water requirement should be field tested. When nearby equipment causes vibration of the grout, during the set, such equipment should be shut down for a period of 24 hours. DO NOT mix over 5 minutes. DO NOT over water; this can cause bleeding or separation. DO NOT retemper. DO NOT add cement, sand, or admixtures. Avoid hazards by following all precautions found in the Safety Data Sheets (SDS), product labels, and technical literature. Contact PSI Technical Services for complete application instructions and limitations.

1.15 CAUTION

Do not dilute. Wear protective gloves and goggles. Avoid prolonged skin contact.

READ SDS PRIOR TO USING PRODUCT. KEEP OUT OF THE REACH OF CHILDREN.

1.16 PHYSICALS	
Compressive Properties (ASTM D695)	
7 day cure	
Compressive Strength	10400 psi (71.70 MPa)
Compressive Modulus	406400 psi 2802 MPa)
Tensile Properties (ASTM D638)	
7 day cure	
Tensile Strength	7500 psi (51.7 MPa)
Tensile Elongation	3%
Flexural Strength (ASTM D790)	6000 psi (41.4 MPa)
Shear Strength (ASTM D732)	5500 psi (37.9 MPa)
Gel Time	45 minutes
Viscosity	3300 cps
Tack Free Time (73°F or 23°C)	3-4 hours
Water Absorption (ASTM D570)	0.11% (24 hr)
Shrinkage on Cure (ASTM D-2566)	0.20%
Heat Deflection Temperature (ASTM D648)	122°F (50°C)
Flexural Strength (ASTM D790)	6000 psi (41.44 MPa)
Thermal Compatibility (ASTM C884)	pass

Please read all information in the General & Safety Guidelines, Technical Data Sheets, Guide Specifications and Safety Data Sheets (SDS) before applying material. PSI Products are for "Professional Use Only" and preferably applied by professionals who have prior experience with the PSI Products or have undergone training in application of PSI Products. Published technical data and instructions are subject to change without notice. Contact your local PSI representative or visit our website for current technical data, instructions, and project specific recommendations.

LIMITED WARRANTY

PSI warrants its products to be free of manufacturing defects and that they will meet PSI current published physical and chemical properties. Seller's sole responsibility shall be to replace that portion of the product which proves to be defective. There are no other warranties by PSI of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. PSI shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. PSI shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. PSI reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the user's responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and PSI makes no claim that these tests or any other tests, accurately represent all environments.