TECHNICAL DATA SHEET

SpecPoxy 2000

ASTM C881-Compliant, High-Modulus, Medium-Viscosity Epoxy

DESCRIPTION

SpecPoxy 2000 is a two-component, multi-purpose, high-modulus, moisture-tolerant epoxy bonding adhesive that meets the requirements of ASTM C881, Types I, II, IV and V, Grade 2, Classes B and C. This 100% solids, solvent-free, medium-viscosity bonder:

- Bonds fresh concrete to hardened concrete
- Bonds steel to fresh concrete
- Anchors bolts, dowels and reinforcing steel
- Gravity-fills cracks in concrete
- VOC content: 0 g/L

APPLICATION

Mixing Instructions: Ready to use; do not thin with any solvent. Air, material and surface temperatures must be a minimum of 40 °F (4 °C) before mixing or installation. Premix each component separately, then mix 1 part Part A with 1 part Part B for 3 minutes with a low-speed drill and a Jiffy mixer or paddle. Mix only as much material as can be used within the pot life.

Surface Preparation: Surfaces to be bonded must be clean and structurally sound. Remove all oil, grease, dirt, laitance, curing compounds and any other foreign material that may interfere with bond. Abrasive blast cleaning and mechanical removal methods are recommended. Clean all drilled holes with a cylindrical bristle brush to remove all dust and loose material, then blow out any remaining dust or debris with clean, oil-free compressed air before installation.

Bonding: As a structural adhesive for bonding fresh concrete to hardened concrete, apply SpecPoxy 2000 neat to the substrate with a brush or roller, or by spraying, at 80 sq ft/gal (2.0 m^2/L), approximately 20 mils thick. Place the fresh concrete while the epoxy is tacky. If SpecPoxy 2000 is no longer tacky, remove any surface dirt or contaminants and apply another coat.

Anchoring: For anchoring dowels, bolts, reinforcing steel, etc., the hole depth should be approximately 9–15 times the bolt diameter. For optimum pull-out, the annular space around the bolt should not exceed 1/8" (3 mm), and should not exceed 1/4" (6 mm) without aggregate extension. Always dispense SpecPoxy 2000 into the hole from the bottom up. Insert the bolt or dowel, turning it slowly during insertion. After insertion, the hole should be completely filled with epoxy and free of air pockets or voids.

Patching: To produce a patching mortar, mix 1–4 parts by volume of clean, dry, well-graded silica sand with 1 part by volume of mixed SpecPoxy 2000, until all the sand is completely wet and evenly dispersed. First apply a prime coat of neat mixed epoxy over the repair area, then place the mortar, working it well into the concrete surface before the prime coat becomes tack-free. Lifts should not exceed 1" (25 mm).

TECHNICAL DATA INFORMATION

Typical Properties

Mix ratio (A:B, by volume)	1:1
Mixed color	Gray
Viscosity	9,800 cps
Gel time (ASTM C881)	55 minutes
Tack-free time at 70 °F (21 °C)	3.5 hours

Typical Cured Properties

Initial cure	24 hours
Final cure	7 days
Compressive strength (ASTM D695)	10,250 psi (70.7 MPa)
Compressive modulus (ASTM D695)	450,400 psi (3105.4 MPa)

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Bond strength, 2 days (ASTM C882)..... 1,790 psi (12.3 MPa)
Bond strength, 14 days (ASTM C882)..... 3,220 psi (22.2 MPa)
Elongation (ASTM D638).....1.9%
Tensile strength (ASTM D638).....7,050 psi (48.6 MPa)
Water absorption (ASTM D570).....< 0.15%
Heat deflection (ASTM D648).....135 °F (57 °C)
Direct tensile pull-out (ASTM E488), 1:1 epoxy:sand by volume; 1" dowel, 2.5" hole, 3.5" embedment 20,990 lb (93.4 kN)

COMPLIANCE/STANDARDS

- ASTM C881 and AASHTO M235, Types I, II, IV and V, Grade 2, Classes B and C

PACKAGING

1 gal (3.79 L), 2 gal (7.6 L) and 10 gal (37.9 L) units; 22 oz (650 mL) dual cartridge

SHELF LIFE

Store SpecPoxy 2000 in the original, tightly closed containers. Shelf life of properly stored product is two years from the date of manufacture.

LIMITATIONS

If the applied epoxy is no longer tacky during bonding operations, it may be reapplied after removing surface contaminants. Do not thin with any solvent. Surface, ambient air and material temperatures must be 40 °F (4 °C) or above. Protect from freezing.

PRECAUTIONS

Prolonged or repeated skin or eye contact may cause irritation; contact with skin may cause chemical burns. Wear safety glasses and protective rubber gloves, and avoid eye contact. If skin contact occurs, wash immediately with soap and water and seek medical help. If eye contact occurs, flush immediately with water. In case of ingestion, call a physician. Product is a strong sensitizer. Avoid breathing vapors.

FOR INDUSTRIAL USE ONLY

Additional precautions, safety and first aid information are contained in the Safety Data Sheet (SDS).

WARRANTY

NOTICE – READ CAREFULLY

CONDITIONS OF SALE

SpecChem offers this product for sale subject to and limited by the warranty which may only be varied by written agreement of a duly authorized corporate officer of SpecChem. No other representative of or for SpecChem is authorized to grant any warranty or to waive limitation of liability set forth below.

WARRANTY LIMITATION

SpecChem warrants this product to be free of manufacturing defects. If the product when purchased was defective and was within use period indicated on container or carton, when used, SpecChem will replace the defective product with new product without charge to the purchaser. SpecChem makes no other warranty, either expressed or implied, concerning this product. There is no warranty of merchantability. NO CLAIM OF ANY KIND SHALL BE GREATER THAN THE PURCHASE PRICE OF THE PRODUCT IN RESPECT OF WHICH DAMAGES ARE CLAIMED.

INHERENT RISK

Purchaser assumes all risk associated with the use or application of the product.

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