TECHNICAL DATA SHEET

SpecPoxy Binder

ASTM C881-Compliant, Low-Modulus Epoxy Binder/Adhesive

DESCRIPTION

SpecPoxy Binder is a two-component, multi-purpose, low-modulus, moisture-tolerant epoxy binder adhesive that meets the requirements of ASTM C881. SpecPoxy Binder can also be used as a multilayer, waterproof, skid-resistant polymer overlay system for bridges and parking decks. This solvent-free, low-viscosity binder provides:

- Low-modulus, high-strength adhesive meeting ASTM C881 requirements
- Moisture tolerance
- Greater flexibility to sustain movement due to thermal changes
- Impermeable, waterproof, skid-resistant surfaces
- Shock-absorbing ability
- Easy blending of aggregates for mortar repairs

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. Optimum adhesion is achieved by creating an open, profiled, roughened surface similar to sandpaper. Shotblasting or mechanical methods are recommended. Thoroughly vacuum up any remaining dust or debris before installation.

Epoxy Mortar: For epoxy mortar, slowly add 3.5–5 parts of clean, dry silica sand to 1 part of mixed SpecPoxy Binder and mix thoroughly, completely wetting out and encapsulating all of the sand with epoxy resin.

For mortar overlays and patching, first clean and prime the prepared substrate with neat SpecPoxy Binder. Then apply the epoxy mortar by trowel or vibrating screed while the primer is still tacky.

Broadcast Overlays: Apply neat SpecPoxy Binder with a 3/16" (5 mm) notched squeegee at approximately 75–100 sq ft/gal (1.8–2.5 m^2/L). Once the epoxy has leveled out, broadcast clean, dry aggregate; a 20–40 gradation silica sand is recommended. Apply the aggregate according to the specification, or at a rate of 2 lb/sq ft (9.8 kg/m^2), or to the point of rejection. After the SpecPoxy Binder has cured hard, remove the excess aggregate and apply either a second application or a seal coat, if required.

TECHNICAL DATA INFORMATION

Typical Properties

Mix ratio (A:B, by volume)	1:1
Mixed color	Gray
Viscosity	2,900 cps
Gel time (ASTM C881)	45 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)	7,500 psi (51.7 MPa)
Bond strength, 14 days (ASTM C882)	2,750 psi (19.0 MPa)
Elongation at break (ASTM D638)	10%

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Water absorption (ASTM D570) ..... < 0.5%

COMPLIANCE/STANDARDS

- ASTM C881 and AASHTO M235, Type III, Grade 1, Classes B and C

PACKAGING

1 gal (3.79 L), 2 gal (7.6 L) and 10 gal (37.9 L) units

SHELF LIFE

Store SpecPoxy Binder 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.

Do not expose uncured product to temperatures below 35 °F (1 °C) or above 90 °F (32 °C) for any length of time. Epoxies may yellow, discolor or chalk when exposed to strong sources of ultraviolet radiation, such as sunlight and some types of industrial artificial lighting. Protect from freezing.

High temperatures will accelerate the setting time, and cool temperatures will slow it down. As a general rule, the gel time of the epoxy is cut in half for each 10–15 °F (6–8 °C) increase in temperature above 75 °F (24 °C).

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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