

CRACKBOND[®] EPOTHANE T3

Epoxy-Urethane Hybrid Type III Overlay

Product Description

CRACKBOND[®] EPOTHANE T3 is a low-modulus, epoxy urethane skid-resistant overlay. It may be successfully applied and cured at temperatures between 60 °F and 95 °F (16 °C and 35 °C).

General Uses & Applications

- Preservation overlay for bridge and parking decks
- High friction surface treatments
- Epoxy mortar binder for patching concrete

Advantages & Features

- Lo-mod, fast cure epoxy/urethane hybrid
- Excellent bond strength
- Moisture-insensitive
- 45 - 60% elongation
- Retains tensile elongation at low temperatures
- Nonflammable
- Easy to mix - 1:1 ratio, color coded
- No primer required
- Designed for automated pump or hand mix application
- Made in the USA in accordance with CFR 49 section 50101

Availability: Adhesives Technology Corp. (ATC) products are available online and through select distributors serving all your construction needs. Please contact ATC for a distributor near you or visit www.atcepoxy.com to search for a distributor by zip code.

Color & Ratio: Part A (Resin) Blue: Part B (Hardener) Yellow, Mixed Ratio is 1:1 by Volume.



Storage & Shelf Life: For best results, store between 50 °F (10 °C) and 95 °F (35 °C). Shelf life is 24 months when stored in unopened containers in dry conditions.

Installation & Coverage: Installation instructions are available within this Technical Data Sheet (TDS). Due to occasional updates, always obtain the most current revision. In order to achieve maximum results, proper installation is imperative. Coverage will vary according to the porosity of the concrete. First course of 1 gallon neat epoxy, with a minimum of 3/8 in. overlay, will cover 40 ft² and second course will cover will cover 20 ft².

Clean-Up: Always wear appropriate personal protective equipment such as safety glasses and gloves. Clean uncured materials from tools and equipment using a mild solvent, such as CRACKBOND[®] INDUSTRIAL CITRUS CLEANER from Adhesives Technology Corp. Cured material may only be removed mechanically using a sander or grinder. Collect with absorbent material. Flush area with water. Dispose of in accordance with local, state and federal disposal regulations.

Limitations & Warnings:

- For professional use only
- Do not thin with solvents, as this may affect cure
- Concrete should be a minimum of 28 days old prior to overlay
- Do not apply if rain is expected
- Consult with ATC when used on exterior slabs on grade subject to freezing or for project specific directions when using as a binder for epoxy mortar
- EPOTHANE T3 is a vapor barrier after curing
- Consult with ATC when mixing or placing outside of the recommended temperature range

Safety: Please refer to the Safety Data Sheet (SDS) for CRACKBOND EPOTHANE T3 published on ATC's website or call for more information at 1-800-892-1880.

Specification: The overlay shall be a 1:1 mix ratio epoxy urethane system supplied in premeasured containers. At 7 days and temperature of 75 °F (24 °C), the overlay shall have a compressive yield strength of 4,772 psi (32.9 MPa) per ASTM D695. The overlay shall be CRACKBOND EPOTHANE T3 from Adhesives Technology Corp., Pompano Beach, Florida.

STANDARDS & APPROVALS

AASHTO M235 / ASTM C881-15
Type III Grade 2 Class C

(See ATC website for Department
of Transportation approvals throughout the
United States)

EPOTHANE T3

HEALER SEALERS & OVERLAYS

Epoxy-Urethane Hybrid Type III Overlay

TABLE 1: CRACKBOND EPOTHANE T3 Adhesive Packaging

Package Size	10 Gallon Kit (38 L)	110 Gallon Kit (416 L)
Part #	B5G-CBET3-A B5G-CBET3-B	B55G-CBET3-A B55G-CBET3-B
Pallet Qty.	18 Kits	2 Kits
Pallet Weight (lb.)	1,735	2,125



B5G-CBET3-A / B5G-CBET3-B

TABLE 2: CRACKBOND EPOTHANE T3 performance to ASTM C881-15^{1,2}

Property	Cure Time	ASTM Standard	Units	Sample Conditioning Temperature
				Class C
				73 °F (23 °C)
Gel Time - 60 Gram Mass ³	----	C881	min	23
Consistency or Viscosity ⁴		C881	cP	2,765
Compressive Yield Strength	7 day	D695	psi (MPa)	4,772 (32.9)
Compressive Modulus		D695	psi (MPa)	91,993 (634)
Tensile Strength ⁵		D638	psi (MPa)	2,850 (19.7)
Elongation ⁵			%	47.7
Flexural Yield Strength ⁶		D790	psi (Mpa)	5,211 (35.9)
Exotherm Temperature - 60 Gram		----	D2471	°F (°C)
Flexural Creep	7 day	CTM-419	in	0.011
Adhesion to Concrete ⁷	24 hr	ACI503	psi (Mpa)	454 (3.1)
Water Absorption	7 day	D570	%	0.21
Effective Shrinkage ⁸	----	C883	Pass/Fail	Pass
Thermal Compatibility ⁹	---	C884	Pass/Fail	Pass

- Results based on testing conducted on a representative lot(s) of product. Average results will vary according to the tolerances of the given property.
- Results may vary due to environmental factors such as temperature, moisture and type of substrate.
- Gel time may be lower than the minimum required for ASTM C881.
- Mixed viscosity performed per ASTM C881 -Spindle #3 @ 20 rpm with 53% Torque.
- Tensile and Elongation tested with Type I tensile bars.
- Flexural Strength after 7 day cure, tested neat @ 40 °F (4.4 C).
- Adhesion to Concrete performed on 2nd layer and resulted in concrete failure.
- Effective Shrinkage performed at 75 °F (23 °C) for 10 cycles.
- Thermal Compability testing performed for 5 cycles.

TABLE 3: CRACKBOND EPOTHANE T3 CURE SCHEDULE¹

Temperature °F (°C)	Cure Time	
	Course 1	Course 2
52 (11)	5 hr	8 hr
57 (14)	4.5 hr	6.5 hr
62 (17)	3.5 hr	5.5 hr
67 (19)	3 hr	5 hr
72 (22)	2.5 hr	4 hr
77 (25)	2 hr	3 hr
82 (28)	1.5 hr	2 hr
85 (29)	1 hr	2 hr

- Table 3 shows average temperature of material and substrate. Site conditions will dictate actual cure response for sweeping first and second layers, as well as open to traffic time.

Epoxy-Urethane Hybrid Type III Overlay

Installation Instructions

Bonding Skid-Resistant Overlays

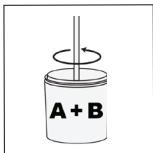
Surface Preparation

Repair delamination, potholes and cracks with CRACKBOND JET PATCH. Clean surface by shot-blasting to remove all contaminants, ICRI Level 5 minimum. Remove dust and debris by blowing with oil-free compressed air.

Mixing

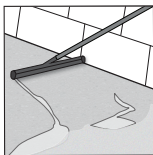
CAUTION: Check the expiration date on the container to ensure it is not expired. **Do not use expired product!** Epoxy materials may separate which is normal and may be expected when stored over a period of time.

IMPORTANT! Mix only the amount of material that will be used at one time. Epoxy resins are temperature sensitive and care should be taken to condition all components between 65 °F to 95 °F (18 °C - 35 °C) for a minimum of 24 hours prior to mixing and placement. Temperatures colder than stated range increase viscosity of resins and inhibit mixing and flow of materials. Temperatures warmer than stated range decrease viscosity of resins, hasten the cure and reduce the working time. Mixing and curing at less than ideal temperatures, <60 °F (16 °C) or >95 °F (35 °C), will require special considerations.



Mechanically mix Part A with Part B 1:1 by volume with Jiffy Mixer paddle or similar using a low-speed variable drill at 300 rpm for a minimum of 3 minutes. Mix only the amount that may be used within the gel time. BULK: For bulk mixing, a positive displacement pump incorporating a static mixing wand and meter is recommended.

Placement



Apply neat EPOTHANE T3 by 3/16 in. to 1/4 in. using a notched squeegee at the specified rate. Broadcast select aggregate to refusal. The aggregate should be angular grain or fracture flint, basalt or bauxite having less than 0.2% moisture. The aggregate should have a minimum MOHS scale hardness of 7, unless otherwise approved, and be free of dirt, clay, or debris. After initial cure of first course, remove excess aggregate. Do not open to traffic. Apply second course of epoxy and aggregate at specified rate. Remove excess aggregate. Allow to cure prior to opening to traffic - see Table 3.