

CRACKBOND[®] V120 LO-MOD

Epoxy Healer Sealer



Product Description

CRACKBOND[®] V120 LO-MOD is a two-component, moisture insensitive, high strength epoxy healer/sealer deck penetrant designed to prolong the life of concrete by sealing cracks against moisture and preventing chloride ion intrusion. It may be successfully applied and cured at temperatures between 60 °F and 95 °F (16 °C and 35 °C).

General Uses & Applications

- Extends deck life on bridges and structures
- Seals concrete floors and roadways
- Preserves airport runways/taxiways
- Protects columns & beams in splash zones
- Consolidation of porous & dusting surfaces
- Serves as a primer or pre-treatment for subsequent epoxy or urethane deck coatings

Advantages & Features

- Excellent bond strength
- Moisture insensitive
- Easy to mix - 2:1 ratio
- Low viscosity
- Low odor
- Low modulus
- Designed for automated pump or hand mix application
- Made in the USA with global materials
- Buy American compliant per 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.

STANDARDS & APPROVALS

ASTM C881-20 / AASHTO M235
Type III Grade 1 Class C

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

Color & Ratio: Part A (Resin) Clear: Part B (Hardener) Amber, Mixed Ratio: 2:1 by volume, Mixed Color - Clear

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 and dark 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. One gallon mixed epoxy covers approximately 150 ft² (14 m²) at a 13 mil thickness on smooth finished concrete.

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 and material properties
- Concrete should be a minimum of 28 days old prior to sealing
- Do not apply if rain is expected; allow sufficient time for the substrate to dry after rain or other inclement conditions
- Avoid overspray or mist conditions when applied by sprayer
- Compressed air equipment must have an oil/air separator
- Maximum of one flood coat application
- When used as a primer or pretreatment prior to overlay, consult ATC representative
- Placement not to exceed recommended temperature as outgassing may occur - see Mix Instructions

Safety: Please refer to the Safety Data Sheet (SDS) for CRACKBOND V120 LO-MOD published on ATC's website or call for more information at 1-800-892-1880.

Specification: The epoxy healer/sealer shall be a two component, 2:1 mix ratio epoxy system supplied in premeasured containers. At 14 days moist cure and temperature of 75 °F (24 °C), the epoxy healer/sealer shall have a bond strength of 1,693 psi (11.5 MPa) per ASTM C882. The epoxy healer/sealer shall be CRACKBOND V120 LO-MOD from Adhesives Technology Corp., Pompano Beach, Florida.

Revision 1.1

Epoxy Healer Sealer

TABLE 1: CRACKBOND V120 LO-MOD Adhesive Packaging

Package Size	3 Gallon Kit ¹ (11 L)	15 Gallon Kit ² (57 L)	165 Gallon Kit ² (625 L)
Part #	B3G-V120	B5G-V120-A B5G-V120-B	B55G-V120-A B55G-V120-B
Pallet Qty.	36 Kits	12 Kits	1 Kit
Pallet Weight (lb.)	1,121	1,707	1,560

1. Resin and hardener are packaged separately inside one 5 gallon outer container.
2. The 15 and 165 gallon kits are comprised of 3 containers with (2) Part A's and (1) Part B per kit.

TABLE 2: CRACKBOND V120 LO-MOD performance to ASTM C881-20^{1,2}

Property	Cure Time	ASTM Standard	Units	Sample Conditioning Temperature
				Class C
				75 °F (24 °C)
Gel Time - 60 Gram Mass ³	----	C881	min	20
Consistency or Viscosity ⁴		C881	cP	121
Tack-Free Cure Time ⁵ (30 mil Thin Film)		D2377	hr	6
Compressive Strength ⁶	7 day	C579	psi (MPa)	5,000 (34.5)
Compressive Modulus		D695	psi (MPa)	100,000 (689)
Tensile Strength		D638	psi (MPa)	3,000 (20.7)
Tensile Elongation			%	40.0
Shore D	1 day	D2240	----	70
Bond Strength	14 day	C882	psi (Mpa)	1,663 (11.5)
Water Absorption		D570	%	0.68
Linear Coefficient of Shrinkage	---	D2566	%	0.0025

1. Results based on testing conducted on a representative lot(s) of product. Average results will vary according to the tolerances of the given property.
2. Results may vary due to environmental factors such as temperature, moisture and type of substrate.
3. Gel time may be lower than the minimum required for ASTM C881.
4. Viscosity was measured at 77 °F (25 °C). Viscosity may vary depending on the spindle type, temperature and RPM's being used during testing. The viscosity may be as low as 104 cP with a spindle speed of 20 RPM's at a temperature of 95 °F (35 °C).
5. Tack-Free Time tested at 75 °F (24 °C).
6. Property tested with aggregate.



B3G-V120



B5G-V120-A / B5G-V120-B

TABLE 3: CRACKBOND V120 LO-MOD CURE SCHEDULE¹

Temperature °F (°C)	Cure Time
62 (17)	5.5 hr
67 (19)	4.5 hr
72 (22)	3.5 hr
77 (25)	3 hr
82 (28)	2.5 hr
85 (29)	2 hr

1. Table 3 shows average temperature of material and substrate. Site conditions will dictate actual cure response for open to traffic time.

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Installation Instructions

Surface Preparation

Concrete or surface must be clean prior to application, structurally sound and free of laitance (poorly bonded materials) and delaminations. New concrete should be a minimum of 28 days old. All dirt, oil, debris, wax, grease or dust should be removed. A dry surface is recommended for optimum results. If desired, the surface may be prepared mechanically using a scarifier, sandblast, shotblast or other equipment that will give the surface profile needed for the application. Remove any debris from mechanical cleaning with oil-free compressed air, taking care to avoid inhalation of respirable crystalline silica dust in accordance with OSHA regulations. If surface is prepared by pressure wash, allow surface to dry 24 hours at temperatures > 70 °F (21 °C) and < 50% relative humidity, prior to installation of CRACKBOND V120 LO-MOD. When surface preparation is complete, it is recommended to test small section on the substrate prior to full installation. This will help confirm compatibility and good adhesion, as well as desired appearance and aesthetics.

Mix Instructions

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 60 °F to 85 °F (16 °C - 29 °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.

For convenience, the 3 gallon kit is packaged inside a 5 gallon pail, allowing the A & B components (3 gallons total) to be completely mixed together without the need for additional containers. Proportion parts by volume into a clean pail at the exact and proper mix ratio. Use 2 parts by volume of Part A and 1 part by volume of Part B. Mix thoroughly with a low speed drill (300 rpm) using a mix paddle attachment (e.g. Jiffy Mixer). Keep the paddle below the surface of the material to avoid entrapping air. Proper mixing will take 3 minutes. **WARNING: Immediately pour product from pail and begin distribution once mixing is complete, as product will begin to cure rapidly. Failure to do so will produce excessive heat with the potential to generate smoke/fumes as the product sits en masse.** For bulk mixing, a positive displacement pump incorporating a static mixing wand and meter is recommended.

Placement



Once the material is properly mixed, apply neat V120 LO-MOD by pouring or spraying all of the material generously onto the surface. Distribute material evenly with a floor squeegee, roller or broom maintaining a liquid head over the cracks until refusal. Remove all excess material with a squeegee or broom. If desired, broadcast select aggregate to properly cover liquid resin. The aggregate should be moisture free and free of dirt, clay etc. After initial cure of first course, remove excess aggregate. Allow applied material to cure. **NOTE:** Environment and substrate temperature may affect cure times.