CRACKBOND®
V65 HI-MOD

(Formerly HEALER/SEALER)
Ultra-Low Viscosity Sealer

DOT
STATE DOT LISTED

Product Description

CRACKBOND® V65 HI-MOD is a two-component, deep penetrating, fast cure, high strength epoxy coating that will reduce intrusion of moisture and water soluble materials into concrete. The ultra-low viscosity allows superior substrate wetting that allows better penetration into static cracks of concrete surfaces. It may be successfully applied and cured at temperatures between 40 °F and 105 °F (4 °C and 41 °C).

General Uses & Applications

- Seals concrete surface to help prevent water and chloride intrusion, protects against de-icing salts
- Structurally repair micro-cracks in concrete surfaces
- Seals in dry and damp environments, parking garage decks, horizontal elevated roadways and bridge decks
- For use in interior concrete slabs and exterior slabs above grade
- Primer for bridge deck overlay

Advantages & Features

- Ultra-low viscosity of 64 cP at 75 °F (24 °C)
- Open to traffic in 6 hours at 75 °F (24 °C)
- Very low surface tension permits deep penetration into deck
- Non-volatile, 100% solids epoxy formulation
- Improves the integrity of cracked and aging concrete surfaces
- Superior bond-strength, adhesion and wear characteristics
- Gravity penetration into hairline cracks and cracks due to concrete shrinkage
- Protects, preserves and extends life of concrete surfaces
- 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 I, II, IV & V Grade 1 Class B & 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: 3:1 by volume, Mixed Color - Clear

Storage & Shelf Life: For best results, store between 40 °F (4 °C) and 90 °F (32 °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. An estimating guide for product usage may be found at www.atcepoxy.com. Coverage will vary according to the porosity of the concrete. New concrete with a screed finish will cover approximately 300 ft² per kit. Broom finish will cover approximately 200 ft² per kit.

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:

- Do not mix in a plastic pail and do not leave mixed material in any pail past the recommended pot life duration - see Installation Instructions
- Do not thin with solvents, as this may affect cure
- 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
- Placement not to exceed recommended temperature as outgassing may occur
- Not intended to repair active or moving cracks

Safety: Please refer to the Safety Data Sheet (SDS) for CRACKBOND V65 HI-MOD published on ATC's website or call for more information at 1-800-892-1880.

Specification: The concrete surface sealer shall be a two component, 3:1 mix ratio epoxy system supplied in premeasured containers. At 7 days and temperature of 75 °F (24 °C), the concrete surface healer shall have a compressive yield strength of 10,640 psi (73.4 MPa) and a compressive modulus of 391,100 psi (2,697 MPa) per ASTM D695. The concrete surface sealer shall be CRACKBOND V65 HI-MOD from Adhesives Technology Corp., Pompano Beach, Florida.

Revision 3.2

V65 HI-MOD

Ultra-Low Viscosity Sealer

TABLE 1: CRACKBOND V65 HI-MOD Adhesive Packaging

Package Size	3 Gallon Kit[1] (11 L)	200 Gallon Kit (757 L)	360 Gallon Kit (1,363 L)
Part #	B3G-V65	B50G-V65-A B50G-V65-B	B270G-V65-A B90G-V65-B
Case/Kit Qty.	2.25 gal Part A 0.75 gal Part B	150 gal Part A 50 gal Part B	270 gal Part A 90 gal Part B
Pallet Qty.	36 kits	1 Pallet (3 Part A, 1 Part B)	2 Totes (1 Part A, 1 Part B)
Pallet Weight (lb.)	1,228	1,920	3,420

1. Resin and Hardener each packaged separately inside one 5 gallon outer container.

B3G-V65

TABLE 2: CRACKBOND V65 HI-MOD performance to **ASTM C881-20**[1,2]

Property		Cure Time	ASTM Standard	Units	Sample Conditioning Temperature		
					Class B	Optional	Class C
					40 °F (4 °C)	50 °F (10 °C)	75 °F (24 °C)
Gel Time - 60 Gram Mass[3]		----	C881	min	238	50	25
Consistency or Viscosity			C881	cP	135	129	64
Compressive Yield Strength		7 day	D695	psi (MPa)	11,620 (80.1)	10,580 (72.9)	10,640 (73.4)
Compressive Modulus				psi (MPa)	455,200 (3,138)	430,400 (2,968)	391,100 (2,697)
Tensile Strength			D638	psi (MPa)	8,640 (59.6)	8,580 (59.2)	9,860 (68.0)
Tensile Elongation				%	4.6	3.5	3.3
Bond Strength Hardened to Hardened Concrete		2 day	C882	psi (MPa)	1,760 (12.1)	2,420 (16.7)	2,240 (15.4)
		14 day		psi (MPa)	2,950 (20.3)	2,650 (18.3)	2,540 (17.5)
Bond Strength Fresh to Hardened Concrete				psi (MPa)	1,680 (11.6)		
Flexural Properties (Procedure A)	Strength	7 day	D790	psi (MPa)	15,180 (105)		
	Tangent Modulus				728,200 (5,021)		
Heat Deflection Temperature			D648	°F (°C)	151 (66.1)		
Thermal Cycling - 5 cycles (Neat)			C884	----	Pass (No Cracking or Delamination)		
Water Absorption		14 day	D570	%	0.53		
Linear Coefficient of Shrinkage		----	D2566	%	0.0008		

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 Type IV at 75 °F (24° C).

TABLE 3: CRACKBOND V65 HI-MOD **CURE SCHEDULE**[1]

Base Material Temperature °F (°C)	Pot Life[2] min	Tack-Free Time[3] hr
40 (4)	90	>40
50 (10)	60	22
75 (24)	15	5
90 (32)	5	3

1. When ambient or base material temperature falls below 70 °F (21 °C), condition the adhesive to 70 - 75 °F (21 - 24 °C) prior to use.
2. Pot life determined by mixing the entire 3 gallon (11 L) kit and determining the length of time for the core to reach critical temperature of 125 °F (52 ° C) based on ISO 10364-2015 Section 6.4, or when initial outgassing was observed.
3. Tack-Free Time based on ASTM D2377 test method.

Installation Instructions

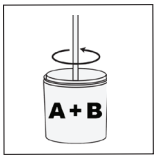
Surface Preparation

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 V65 HI-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.

If larger cracks are present on the surface to be sealed, these may be repaired by pressure injection with CRACKBOND LR-321 LV prior to being coated with V65 HI-MOD. See TDS for CRACKBOND LR-321 LV for details regarding pressure injection of larger cracks.

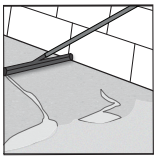
CRACKBOND V65 HI-MOD is not intended to be placed over unrepaired, spalled, blistered, delamintated, crusted, chloride damaged, polished, sealed or densified concrete and is not intended to fill or stabilize control, isolation or expansion joints.

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. Mix only the amount of material that can be used prior to pot life expiration - see Table 3. For convenience, the 3 gallon kit is packaged inside a 5 gallon steel pail, allowing the A and B components (3 gallons total) to be completely mixed together without the need for additional containers. **WARNING: Do not mix in a plastic pail and do not leave mixed material in any pail past the recommended pot life duration as product will begin to cure rapidly, producing excessive heat and will generate significant smoke/fumes**. Proportion parts by volume into a clean steel pail at the exact and proper mix ratio. Use 3 parts by volume of component A and 1 part by volume of component B Mix thoroughly with a low speed drill (400 – 600 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 2 – 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.**

Gravity Feed Application



Once the material is properly mixed, immediately pour all of the material generously onto the horizontal surface. Spread within 15 minutes when substrate temperature is 75 °F (24 °C); this time will shorten at higher temperatures - see Table 3. Allow material to pond over cracks, permitting it to sink in and heal. Use a floor squeegee to spread material evenly over the entire surface. Remove excess material using a squeegee, thin nap roller or stiff bristled broom depending on the substrate's surface profile and desired final appearance, leaving an even coat. If desired, silica sand (20 to 50 mesh) may be used to create a slip-resistant surface. Broadcast the silica sand throughout the surface, then backroll into the surface to encapsulate the sand. Allow applied material to cure. Surface may be opened to traffic in 6 hours at 75 °F (24 °C). **NOTE**: Environment and substrate temperature may affect cure times. If necessary, a second coat may be applied 1 hour following the product's tack-free time (see Table 3), or after all of the product has penetrated the concrete, but before 24 hours for temperatures of 50 °F (10 °C) and higher. Recoat time is dependent on substrate porosity and profile, temperature and spread rate. A longer wait time will be required in cooler temperatures.