

MasterEmaco[®] ADH 326

Liquid epoxy concrete bonding adhesive with long pot life

FORMERLY CONCRECISIVE[®] LIQUID LPL

PACKAGING

– 1 gallon (3.8 L) kits

YIELD

SMOOTH SURFACES:
100 ft²/gal (2.4 m²/L)

ROUGH SURFACES:
50–75 ft²/gal (1.2–1.8 m²/L)

STORAGE

Store and transport in unopened containers in a cool, clean, dry area. Keep from freezing.

SHELF LIFE

2 years when properly stored

VOC CONTENT

0 g/L less water and exempt solvents

DESCRIPTION

MasterEmaco ADH 326 is a two-component 100% solids liquid epoxy bonding adhesive. It is designed for use in warm environments or applications requiring a long working time.

PRODUCT HIGHLIGHTS

- Bonds to damp concrete surfaces
- Very long working time
- Versatile formulation allows extension with properly graded sand
- High-build liquid allows adequate coverage in a single application

APPLICATIONS

- Interior and exterior
- Bonding fresh concrete to existing concrete
- Grouting bolts, dowels, and rebar into concrete, stone, and masonry
- Filling joints and voids in masonry
- Bonding concrete to dissimilar materials like steel and wood
- Coating rebar

SUBSTRATES

- Concrete
- Steel

HOW TO APPLY

SURFACE PREPARATION CONCRETE

1. Substrate may be dry or damp, although dry surfaces product optimum results. new concrete must be fully cured (28 day minimum).
2. Remove grease, wax, oil contaminants, and curing compounds by scrubbing with an industrial-grade detergent or a degreasing compound. Follow with mechanical cleaning (refer to ASTM D 4258). Remove weak, contaminated, or deteriorated concrete by shotblasting, bushhammering, gritblasting, scarifying, or other suitable mechanical means.

STEEL

Remove dirt, grease, and oil with a suitable industrial-grade cleaning-and-degreasing compound (SSPC-SP-1). Remove rust and mill scale by gritblasting. Blast steel to white metal. Follow gritblasting with vacuuming or oil-free dry-air blast (refer to SSPC-SP-10 or NACE-2).

MIXING

1. Precondition all components to 70° F (21° C). Thoroughly stir each component before mixing.
2. The mix ratio is 2:1(A:B). Mix only the amount of material usable before the pot life expires.
3. Measure each component carefully and then add Part B to Part A.

Technical Data

Composition

MasterEmaco ADH 326 is a two-component 100% solids liquid epoxy.

Compliances

- ASTM C 881, Type II, Grade 2, Class C

Typical Properties

COMPONENT	PART A		PART B	
	(Resin)		(Hardener)	
Form	Liquid	Liquid	Liquid	Liquid
Color	White	White	Black	Black
Mixing ratio (by volume)	2	1	2	1
Mixed color	Dark gray			

PROPERTY	VALUE		
	50° F (10° C)	77° F (25° C)	105° F (41° C)
Pot life			
1 qt (946 ml)	4.5 hrs	75 min	30 min
1 gal (3.8 L)	3.9 hrs	70 min	25 min
5 gal (18.9 L)	2.5 hrs	60 min	20 min
Viscosity, cps			
Resin	66,000	12,000	9,000
Hardener	1,150	350	110
Mixed	63,000	9,000	8,500
Thin film, open time	4 hrs	2 hrs	40 min
Thin film, days, full cure	14	7	3

Test Data¹

PROPERTY	RESULTS	TEST METHOD
Tensile strength, psi (MPa)	3,800 (26.2)	ASTM D 638
Elongation at break, %	2	ASTM D 638
Compressive yield strength, psi (MPa)	8,300 (57.3)	ASTM D 695
Compressive modulus, psi (MPa)	3.5 × 10 ⁵ (2.4 × 10 ³)	ASTM D 695
Heat deflection temperature, ° F (° C)	127 (53)	ASTM D 648
Slant shear strength, psi (MPa)	5,000 (34.5)	AASHTO T-237
Bond strength, damp-to-damp concrete	100% concrete failure	AASHTO T-237
Bond strength at 14 days, psi (MPa)	1,800 (12.4)	ASTM C 882
Flexural bond strength, psi (MPa)	570 (3.9)	ASTM C 293

¹Test temperature 77° F (25° C), cured 7 days.

Properties listed are typical and may be used as a guide for determining suitability for particular applications.

- Mix using a low-speed drill (600 rpm) and mixing paddle (e.g., a Jiffy mixer). Carefully scrape the sides and bottom of the container while mixing. Keep the paddle below the surface of the material to avoid entrapping air. Proper mixing will take at least 3–5 minutes. Well-mixed material will be free of streaks or lumps and be uniform in color.

APPLICATION

Application temperature range is 50 to 105° F (10 to 41° C).

GENERAL BONDING

Although this product will adhere to damp surfaces, dry surfaces produce the best results. When the surface is wet, remove standing water by air blast or squeegee. Apply the bonding agent with a brush, paint roller, squeegee, or conventional or airless sprayer. The minimum thickness should be 15 mils.

BONDING FRESH CONCRETE TO EXISTING CONCRETE

- The fresh concrete to be bonded should have a relatively low-slump.
- When bonding concrete containing latex polymer admixtures, check compatibility either by installing a test patch and performing a pull-off test or by conducting a laboratory slant shear test (ASTM C 882).
- Apply the bonding agent as described in the General Bonding section above. When bonding to lightweight concrete, a second coat may be required if the first coat is absorbed by the substrate. Place fresh concrete within the open time (40 minutes). Be careful when applying the fresh concrete not to damage the bonding layer.
- For highly irregular surfaces, sand may be used to extend this material. For proper application techniques contact Master Builders Solutions Technical Service.

BOLT AND REBAR GROUTING

- The hole must be free of water or debris before grouting.
- Minimum annular space is ¼".
- Pour a measured amount of bonding agent into the hole. Insert the bar, displacing the bonding agent, then secure the bar in the center of the hole. Remove excess bonding agent from around the hole before it hardens. Use pressure grouting for holes deeper than 2 ft (0.6 m).

CLEAN UP

Clean all tools and equipment immediately with xylene or mineral spirits. Cured material must be removed mechanically.

FOR BEST PERFORMANCE

- Do not add solvent, water, or any other material to the bonding agent.
- For professional use only; not for sale to or use by the general public.
- Make certain the most current versions of product data sheet and SDS are being used; visit www.master-builders-solutions.com/en-us to verify the most current version.
- Proper application is the responsibility of the user. Field visits by Master Builders Solutions personnel are for the purpose of making technical recommendations only and are not for supervising or providing quality control on the jobsite.

HEALTH, SAFETY AND ENVIRONMENTAL

Read, understand and follow all Safety Data Sheets and product label information for this product prior to use. The SDS can be obtained by visiting www.master-builders-solutions.com/en-us, e-mailing your request to mbsbcst@mbcc-group.com or calling 1(800)433-9517. Use only as directed.

IN CASE OF EMERGENCY: Call CHEMTEL +1 (800) 255-3924 or if outside the US or Canada, +1 (813) 248-0585.

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