

# MasterInject® 1500

Low-viscosity epoxy adhesive

FORMERLY CONCRECIVE® STANDARD LVI

## PACKAGING

- 3 gallon (11 L) units
- 15.2 oz (300 by 150 ml) biaxial cartridges, 12 per box; 1 mixing nozzle per cartridge

## COLOR

Amber

## YIELD

231 in<sup>3</sup>/gal (0.001 m<sup>3</sup>)

## STORAGE

Store and transport in sealed containers at temperatures between 50 and 90° F (10 and 32° C)

## SHELF LIFE

2 years when properly stored

## VOC CONTENT

0 g/L less water and exempt solvents

## DESCRIPTION

MasterInject 1500 is a two-component moisture-insensitive 100% solids low-viscosity epoxy adhesive. It penetrates cracks and voids, bonding hardened concrete to hardened concrete. It can be mixed with aggregate to make high-strength, high-modulus epoxy concrete and mortars.

## PRODUCT HIGHLIGHTS

- Rapid strength gain, quickly returns repaired areas to service
- Creep resistant, maintains structural integrity under load
- Low viscosity, can be injected into cracks from 0.002–0.25" (0.05–6 mm)
- Moisture insensitive, bonds to damp or dry concrete

## APPLICATIONS

- Horizontal and vertical surfaces
- Interior or exterior
- As a high-strength binder for grouts and mortars
- Repairing of concrete slab or walls
- Injection of cracks
- Repairing of beams, columns, and foundations
- Anchoring bolts, dowels, and reinforcing bars
- Consolidating rock pockets or honeycombs

## SUBSTRATES

- Concrete
- Steel

## HOW TO APPLY

### SURFACE PREPARATION CONCRETE

1. Substrate may be dry or damp, although dry surfaces produce 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).
3. Remove weak, contaminated, or deteriorated concrete by shotblasting, bushhammering, gritblasting, scarifying, or other suitable mechanical means. Follow mechanical cleaning with vacuum cleaning (refer to ASTM D 4259).

### STEEL

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

## MIXING

1. The mix ratio is 2:1 (A:B). Mix only the amount of material usable before the pot life expires (Approximately 45 min. at 70 F). Thoroughly stir each component before mixing.

**Technical Data**

**Composition**

MasterInject 1500 is a two-component

100% solids epoxy.

Compliances

- ASTM C 881, Type I, II, IV, V, Grade 1, Class C

**Typical Properties**

PROPERTY	PART A (Resin)	PART B (Hardener)
<b>Form</b>	Liquid	Liquid
<b>Color</b>	Amber	Amber
<b>Mixing ratio</b> (by volume)	2	1
<b>Mixed color</b>	Amber	

PROPERTY	VALUE
<b>Pot life</b> , min, 150 g mass	40
<b>Viscosity</b> , cps (mixed)	300 ± 50
<b>Thin-film cure</b> , days	2
<b>Initial cure</b> , hrs (80% of ultimate strength)	24

**Test Data**

PROPERTY	RESULTS	TEST METHOD
<b>Tensile strength</b> , psi (MPa)	7,500 (52)	ASTM D 638
<b>Elongation at break</b> , %	1 (minimum)	ASTM D 638
<b>Compressive yield strength</b> , psi (MPa)	11,000 (76)	ASTM D 695
<b>Compressive modulus</b> , psi (GPa)	2.5 x 10 <sup>5</sup> (1.75)	ASTM D 695
<b>Heat deflection temperature</b> , ° F (° C)	124 (51)	ASTM D 648
<b>Bond strength, slant shear</b> , psi (MPa)		ASTM C 882
2 day	1,500 (10)	
7 day	2,000 (14)	

Test conditions: 77° F (25° C), cured 7 days. Test results are averages obtained under laboratory conditions.  
 Expect reasonable variations.

2. Measure each component carefully and then add Part B (Hardener) to Part A (Resin).
3. Mix Parts A and B 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.
4. MasterInject 1500 can be poured into cracks or dispensed with most 2-to-1 plural component pumps.

#### APPLICATION

- Application temperature range is 50 to 105° F (10 to 41° C). Precondition all components to 70° F for 24 hours before using.

#### PRESSURE INJECTION OF CRACKS

1. MasterInject 1500 is formulated for mixing and application with automatic pressure-injection equipment. Follow the recommendations and directions supplied by the equipment manufacturer.
2. Seal the ports and cracks with an appropriate paste epoxy.
3. When the paste is cured, inject MasterInject 1500 using standard pressure-injection equipment or by gravity feed.
4. For injection with side-by-side dispenser, hold in an upright position and use continuous pressure to avoid an improper mixing ratio.

#### PATCHING MORTARS AND GROUTS

1. Use washed, kiln-dried, and bagged graded silica sand. A carefully selected blend of sands with a low void content will require less epoxy for a given volume of mortar compared to ungraded sands. A good “skip” gradation for low void content is a blend by weight of 2 parts #12 or #16 mesh to 1 part #80 or #100 mesh. When graded sands are not available, a good general purpose sand is #30 mesh silica.
2. The maximum placement depth is 1" (25 mm).

#### BOLT AND REBAR GROUTING

1. Holes may be cut either by rotary-percussion drilling, followed by air blow-out with oil-free compressed air, or diamond core boring, followed by water flush. The hole must be free of water before grouting. Where holes will be precast into the concrete, cast them undersized and drill them to fit.
2. The optimum hole size is 1/4" (6 mm) larger than the bar's; larger annular spaces are less desirable.
3. Pour a measured amount of epoxy into the hole. Insert the bar, displacing the epoxy, then secure the bar in the center of the hole. Remove excess epoxy from around the hole before it hardens. Pressure grouting is recommended for grouting holes deeper than 2 ft (0.6 m).

#### GRAVITY-FEED CRACK FILLING

1. For cracks from 1/16–1/4" (1.5–6 mm), V-notch the crack and fill with 60–80 mesh sand.
2. Pour the mixed epoxy into the crack until completely filled.
3. When cracks extend through the slab, be certain to cap seal the back side of the crack.

#### CLEAN UP

Use solvents like acetone or methyl ethyl ketone (MEK). Use commercial epoxy or paint stripper solvents for hardened epoxy. Consult solvent manufacturer's recommendations. Cured material must be removed mechanically.

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#### FOR BEST PERFORMANCE

- Do not add solvent, water, or any other material to the product.
- Neat epoxy binder should not be applied greater than 1/4" (6 mm). Consult with manufacturer for recommendation.
- Bonding to a clean, damp surface is possible but less desirable than bonding to a dry surface. When applying this product to a damp surface, remove free water by oil-free airblast.
- 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 [master-builders-solutions.basf.us](http://master-builders-solutions.basf.us) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and are not for supervising or providing quality control on the jobsite.

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#### 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.basf.us](http://www.master-builders-solutions.basf.us), e-mailing your request to [basfbcst@basf.com](mailto:basfbcst@basf.com) or calling 1(800)433-9517. Use only as directed.

**For medical emergencies only,  
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