

PATCH-1

HEAVY DUTY EPOXY REPAIR RESIN

Medium Viscosity Structural Epoxy Liquid
for Class 6-9 Industrial Concrete Floor Repair

TECHNICAL DATA

P1-1

1. Product Name

PATCH-1

2. Manufacturer

METZGER/MCGUIRE

PO Box 2217 Concord, NH 03302 (USA)

Phone: 603-224-6122 Fax: 603-224-6020

Web: www.metzgermcguire.com

3. Product Description

Composition

PATCH-1 is a two-component, moisture tolerant, 100% solids structural epoxy system designed for the repair of surface spalls and defects in heavily trafficked industrial concrete floors. When cured, **PATCH-1** is a gray, rigid restoration material with a Shore D Hardness of 88.

Typical Use

As a liquid;

- Interior slab tilt pin/anchor patching
- Fill wider random cracks
- As a topping for delaminated slabs
- Fill/repair holes, potholes, gouges, ruts, popouts

Related Products

Armor-Hard Liquid or Kit – early-set structural epoxy repair mortar for large surface spalls and joint edge rebuild/re-nosing in ambient buildings 50°F or higher.

Armor-Hard Extreme Liquid or Kit – quick-set structural epoxy repair product for large surface spalls and joint edge rebuild/re-nosing in buildings 20°F or higher.

4. Limitations

- Should not be used in active or moving joints or cracks as restraint will occur.
- For deep repairs in warmer temperatures, install in maximum 1" layers to prevent exothermic shrinkage.
- Designed for use in buildings with ambient temperatures of 50°F or above.
- While ideal for repairing anchor bolt holes, the product is not designed as an anchor bolt adhesive.

5. Advantages

- Superior wear and impact resistance
- Medium viscosity
- Low odor; 100% solids
- User friendly mix ratio

6. Color

PATCH-1 is available in two colors: **Limestone** and **Concrete Gray**. The product comes packaged as a two-part, .75 US Gallon unit; 2 parts Part A Resin in a 1 gallon can and 1 part Part B Hardener in a 1 quart can.

7. TECHNICAL PROPERTIES

PROPERTY	RESULT	TEST METHOD
WEIGHT PER GALLON (MIXED)	9.1	
MIX RATIO BY VOLUME	2:1	
MIX RATIO BY WEIGHT	2.33:1	
MIXED VISCOSITY, cP or mPa.s	7850	ASTM D 2196
GEL TIME, min	60G @ 70°F 30 minutes 60G @ 50°F ~ 7 hours	
APPLICATION TEMPERATURE, °F (°C)		
Ideal	70-80 (21-27)	
Acceptable	50-90 (13-32)	
HARDNESS, SHORE D	88	ASTM D 2240
BOND STRENGTH - ADHESION TO CONCRETE, 500 psi (100 % failure in concrete)		ASTM D4541
COMPRESSIVE STRENGTH	12,500 psi	ASTM D695

8. USDA/FDA/LEED® Acceptability

PATCH-1 Heavy Duty Epoxy Repair Resin is acceptable for use in floors subject to inspection/regulation by the USDA and the FDA. **PATCH-1** contains no VOC's and fully complies with all LEED® green building standards for low VOC repair materials.

9. Where to Specify and File

PATCH-1 is exclusively for use in cast-in-place concrete floors and this should always be referenced in *030130 Maintenance of Cast-In-Place Concrete* or *030130.71 Rehabilitation of Cast-In-Place Concrete*.

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10. Installation Instructions

Surface Preparation

All surfaces must be clean, dry, structurally sound and free of grease, oil, coatings, sealers, paint, etc. Surface preparation may be accomplished by grinding, sawing, chipping, sandblasting, etc. Minimum suggested floor temperature at time of installation is 50°F (10°C).

When using PATCH-1 in "neat" liquid consistency, material may be feather-edged. Upon adequate cure, grind flat to the floor surface with a sanding disc or pad.

Mixing

(Caution: Read product container labels and SDS before using).

PATCH-1 is a 2:1 ratio product. (2 Parts A Resin, 1 Part B Hardener). If using less than full unit, "A" and "B" Ratio must be measured precisely by weight or volume, as noted in Technical Properties.

Material should be stored and mixed at ambient temperature (i.e. 70°F). Warmer material temperature will lead to reduced pot life. Cooler temperatures will lead to longer working time (and slower cure time).

Pre-mix Part A (Resin) to ensure proper pigment disbursement. Combine parts "A" and "B" in a plastic pail and mix for 1.5 minutes using a variable speed drill at low RPM and a paint mixing paddle (Jiffy or similar). Dispense promptly.

Cleanup

Spills of unmixed components can be cleaned up with solvent (Toluol, Xylol, denatured alcohol, etc). Clean tools and spills before epoxy or mortar has set using solvent or warm soapy water.

11. Coverage, Aggregate Loading

One unit of **PATCH-1** contains .75 US Gallon liquid epoxy with an approximate yield of 175 cubic inches of material.

12. Shelf Life and Storage

PATCH-1 has a guaranteed shelf life of 12 months if containers remain unopened. Store in dry, cool areas away from excessive heat, freeze/thaw and sunlight.

13. Safety

This product is for industrial use only. Use only in well-ventilated areas. Practice all normal jobsite safety precautions (ventilated work area, proper safety equipment, etc). Thoroughly read SDS and installation instructions for additional information prior to using material.

14. Warranty:

Metzger/McGuire Co. solely and expressly warrants that its product shall be free from defects in material and workmanship for 12 months from the date of purchase. Unless authorized in writing by an officer of Metzger/McGuire, no other representations or statements made by Metzger/McGuire or its representatives, in writing or orally, shall alter this warranty. Metzger/McGuire makes no warranties, implied or otherwise, as to the merchantability or fitness for ordinary or particular purposes of its products and excludes the same. If any Metzger/McGuire product fails to conform with this warrant, Metzger/McGuire will replace the product at no cost to the purchaser. Purchaser's sole remedy in any case shall be limited to the purchase price or replacement cost of product and specifically excludes labor and the cost of labor, lost wages and opportunity costs, and all other possible incidental, consequential or special damages resulting from any claim of breach of warranty, breach of contract, negligence or any legal theory. Any warranty claim must be made within one (1) year from the date of material purchase. Metzger/McGuire does not authorize anyone on its behalf to make any written or oral statements which in any way alter the installation procedures or written installation instructions published in its product literature or on its packaging labels. Any installation of Metzger/McGuire products which fails to conform with such installation information or instructions shall void this warranty. Purchaser shall be solely responsible for determining the suitability of Metzger/McGuire's products for the purchaser's intended purpose.