



IPA SYSTEMS

IPANOL HIMOD

100% Solid Epoxy, High Modulus, Medium Viscosity Resin

IPA SYSTEMS

QUALITY PRODUCTS FOR THE CONCRETE /MASONRY REPAIR INDUSTRY

Description

IPANOL HIMOD A solvent-free, moisture insensitive, 100% solids, medium viscosity, two component epoxy bonding agent and injection resin. Recommended for structural crack repair for larger cracks; .007-.030 in / .18-.76 mm. An excellent epoxy adhesive for use in crack grouting by pressure injection or gravity-feed and for making epoxy mortars and grouts.

Where to Use

IPANOL HIMOD is designed for structural bonding of fresh to hardened & old to old concrete . Structural crack repair for larger cracks, i.e. .007-.030 in / .18-.76 mm cracks. Structural adhesive for concrete, masonry, metal, wood, etc.

Advantages

- ◆ Made in America
- ◆ Superior adhesion and fast setting
- ◆ Easy to mix 1:1 ratio
- ◆ Moisture Insensitive

Coverage Rate

1 gallon (3.8 L) of **IPANOL HIMOD** will cover approximately 80 to 100 square feet (7.4 m² to 9.3 m²) on a smooth surface. Coverage will be less on a rough surface. 1 gallon (3.8 L) of **IPANOL HIMOD** when mixed with 1 gallon of loose oven dried aggregate yields 360 cubic inches (5.9 L) of grouting adhesive. Mixing 1 gallon of **IPANOL HIMOD** with 3 gallons (11.4 L) of loose aggregate will yield approximately 660 cubic inches (10.8 L) of epoxy mortar.

Packaging

2 gal / 7.6 liter units (2 - 1 gal cans)
10 gal / 37.9 liter units (2 - 5 gal pails)
110 gal / 416.4 liter units (2 - 55 gal drums)

Appearance: component A- white component B- gray

Shelf Life: 1 year in original unopened container Storage Conditions: Store at 40 - 95°F (5 - 35°C). Condition material to 65 - 85°F (18 - 29°C) before using

Technical Data

Type: Moisture Insensitive, 100% Solids, Hi-Mod, Medium Viscosity
 Mixing Ratio: Part A to Part B, 1:1 by volume
 Viscosity: 6,500 cps
 Gel Time: Neat 45 minutes @ 75°F (23.9°C)

Bond Strength (psi), ASTM C 882, Hardened concrete to Hardened Concrete or Steel:

2 Day Cure:	ASTM-882	1,750 psi
14 Day Cure:	ASTM-882	3,100 psi
Tensile Strength, psi	ASTM D-638	7,370 psi
Tensile Elongation, %	ASTM D-638	2.0%
Compressive Strength, psi (MPa)	ASTM D-695	10,300 psi
Modulus of Elasticity	ASTM D-695	237,900 psi
Linear Coefficient of Shrinkage	ASTM D- 2566	.0016
Absorption	ASTM D-570	0.15%
Heat Deflection	ASTM D-648	122°F
Shore D Hardness		80

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Surface Prep

Surface must be clean and sound. It may be dry or damp, but free of standing water. Remove surface contaminants i.e. dust, grease, curing compounds, impregnations, waxes, foreign particles and disintegrated materials.

Concrete: Sandblast or use other approved mechanical means.

Steel: Sandblast to white metal finish.

Mixing

Pre-mix each component thoroughly. Place 1 part by volume of component A and 1 part by volume of component B into a clean pail. Mix thoroughly for 3 min. with low-speed drill and Jiffy type mixer (400-600rpm) until uniformly blended. Mix only the quantity that can be used within its gel time.

Application

TO BOND FRESH CONCRETE TO HARDENED CONCRETE: Apply by brush, roller, broom or spray to cured concrete substrate. Place fresh concrete while Ipanol Himod is still tacky. If coat of Ipanol Himod loses tackiness before pouring concrete, roughen epoxy surface to create bonding profile. Recoat with additional Ipanol Himod and proceed.

TO BOND OLD TO OLD CONCRETE: Apply the mixed Ipanol Himod by brush, roller, broom or spray to the substrate working in for positive adhesion. While coating is tacky, join the coated substrates and secure firmly into place. Glue-line should not exceed 1/8 in / 3.2 mm.

TO STRUCTURALLY REPAIR CRACKS BY GRAVITY FEED: If cracks reflect through slab, seal under-side of cracks by buttering crack with Ipanol Anchoring Gel. Otherwise, pour neat Ipanol Himod into vee-notched crack. Continue placement until crack is completely filled.

TO VERTICALLY ANCHOR REBAR, DOWELS, AND THREADED ROD: For efficient transfer of stress, the annular space around bolt should not exceed 1/8 in / 3.2 mm. The depth of embedment is typically 9 times the bolt diameter. Grout with neat Ipanol Himod .

TO PREPARE EPOXY MORTAR: Slowly add 1 1/2 parts by loose volume of an oven dried aggregate to 1 part of the mixed Ipanol Himod . Mix until uniform in consistency and color.

Limitations

- ◆ Minimum material, surface and ambient temperature must be 40°F and rising
- ◆ For best results use between 65 – 85°F (18 – 29°C).
- ◆ Do not thin with solvents
- ◆ Minimum age of concrete must be 5-7 days.
- ◆ Do not seal slabs on grade. Ipanol HIMOD is a vapor barrier in this application.
- ◆ Maximum epoxy mortar thickness is 1.5” / 3.8 cm per lift.

Clean-up

EQUIPMENT: Uncured material can be removed with a citrus cleaner or another approved solvent. Cured material can only be removed mechanically. **MATERIAL:** Collect with absorbent material. Flush area with water. Dispose of in accordance with local, state, and federal disposal regulations.

Caution

FOR INDUSTRIAL USE ONLY:

Component A – Irritant • Component B – Corrosive • Product is a strong sensitizer. Use of safety goggles and chemical resistant gloves are recommended. • Use of a NIOSH/MSHA organic vapor respirator is recommended if ventilation is inadequate. • Avoid breathing vapors. • Avoid skin contact. First Aid: **EYE CONTACT:** Flush immediately with water for at least 15 minutes. Contact physician immediately. **RESPIRATORY CONTACT:** Remove person to fresh air. **SKIN CONTACT:** Remove any contaminated clothing. Remove epoxy immediately with a dry cloth or paper towel. Solvents should not be used as they carry the irritant into the skin. Wash skin thoroughly with soap and water. **CURED EPOXY RESINS ARE INNOCUOUS.**

See MSDS for additional precautionary information and health hazard data

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Warranty

This product is warranted and guaranteed to be of good quality. Manufacturer, as its sole and exclusive liability hereunder, will replace material if proved defective. This warranty and guarantee are expressly in lieu of all others, express or implied, including any implied warranty of merchantability or fitness for a particular purpose and may not be extended by representatives or any persons, written sales information, or drawing in any manner whatsoever. While the manufacturer recommends uses for the product based on tests believed reliable, no warranties, express or implied, or guarantee can be given as to particular methods of use or application, nor can performance be warranted, expressly or impliedly, or guaranteed under special conditions. Distributors, salesperson or company representatives are not authorized to extend or vary any warranties or guarantees beyond those outlined herein nor may the manufacturer's or seller's limitation of liability be waived or altered in any

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