Heritage Masonry Repair Mortar
IG10 – Injection Grout

Product Data Sheet

Description and Use

IG10 is an injectable single component cementitious, low-shrink grout with excellent bond strength designed to fill gaps and bond a variety of masonry materials. It is formulated using mineral binders; no synthetic polymers or additives are used. Skilled masons can easily use IG10; no special certification is required.

IG10 is ready to use after being mixed with water. Mixed IG10 is ultra-fine and super-plasticized to enable injection into cracks ranging from 1/16" to 1/4" (1.5 to 5 mm) or manual application as adhesive for reattaching broken pieces of masonry elements.

Features and Benefits

- Gravity fed or pressure injected for deep penetration of cracks
- Excellent adhesion to substrates
- Breathable material contains no synthetic polymers or additives. that create a vapor barrier or discolor with UV
- Low-shrink formulation
- Rapid set at room temperature
- No site mixing of product components
- Sympathetic product formulation ensures compatibility with stone based on key performance measures, resulting in superb long-term repair durability
- IG10 can be typically be specified and installed as a direct substitute to other mineral-based adhesive masonry crack fillers
- Standard white color facilitates quick, convenient installation
- Custom-matched colors and aggregate blends produce unbelievable visual accuracy
- USHG provides unmatched product and project support, for one pail or hundreds, to ensure excellent results for every installation.

Sales, Product and Project Support

US Heritage Group supports, sells and ships all products directly to ensure we consistently deliver the highest quality results possible. Contact USHG for a variety of support services:

- Specifier education
- Project-specific technical advice
- Specification guides and support
- Custom color and aggregate matching
- Installation guides and training

Technical Data

Compressive Strength: (ASTM-109)	3 days 4,360 psi 7 days 6,530 psi 28 days 7,300 psi
Bond Strength: (ASTM C-882)	1,815 psi
Flexural Strength: (ASTM C-348)	1,700 psi
Modulus of Elasticity: (ASTM C-469)	2,350 ksi
Porosity:	6%
Absorption:	4 to 6%
Linear Coefficient of Thermal Expansion:	3.9 to 5.5 x 10^{-6}/°F

Packaging and Coverage

1-quart plastic jar (2 lbs.)	40 cubic inches of mixed material
1-gallon plastic pails (9 lbs.)	150 cubic inches of mixed material
5-gallon plastic pails (44 lbs.)	0.40 cubic feet

Limited Warranty

U.S. Heritage Group, Inc. warrants this product to be of merchantable quality when used or applied in accordance with the manufacturer's instructions. This product is not warranted as suitable for any purpose or use other than the general purpose for which it is intended. Liability under this warranty is LIMITED to the replacement of the product (as purchased) found to be defective, or at the shipping companies' option, to refund the purchase price. In the event of a claim under this warranty, notice must be given in writing to U.S. Heritage Group, Inc., 2900 North Kearsarge Ave., Chicago, IL 60641. THIS LIMITED WARRANTY IS ISSUED AND ACCEPTED IN LIEU OF ALL OTHER EXPRESSED WARRANTIES AND EXPRESSLY EXCLUDES LIABILITY FOR CONSEQUENTIAL DAMAGES.

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Surface Preparation

Cracks being repaired with IG10 should be between 1/4" and 1/16" wide. For cracks less than 1/16" wide, use Dispersed Hydrated Lime Injection Mortar. Cracks larger than 1/4" should be filled using the appropriate corresponding Heritage Masonry Repair Mortar

1. Cracks should be wide enough to fit the injection syringe (typically 1/16"). If cracks are narrower than syringe needle, drill pilot holes along the path of the cracks in a downward direction. Pilot holes should be drilled every 3-4 inches as needed.
2. Broken pieces of masonry to be reattached should be fitted with stainless steel pins as needed. The holes for these pins should be drilled prior to the application of IG10.
3. Sound off and chisel out all loose and deteriorated stone.
4. Clean the area with clean water and a stiff-bristled brush to remove any loose stone particles.
5. Neutralize any salt deposits (efflorescence and sub florescence) with distilled water.
6. Dampen with clean water until glistening with no standing water.

Mixing

Wear safety goggles, latex gloves and a dust mask equipped with P-2 filters or equivalent for protection. The consistency of the mixture should be similar to that of syrup. Do not over-wet Do not over mix. Temperature and humidity will affect the amount of water required.

1. Add 4 parts dry powder to approximately 1-part potable water in plastic pail.
2. Mix thoroughly by hand or by low-speed drill (250 to 450 rpm) for 1-2 minutes or until no dry material remains.
3. Check consistency.
4. If necessary, add fractional part powder or water to adjust and re-mix in 30 second increments for a maximum of 2 minutes.

Application

IG10 can be applied by injection syringe directly into cracks or across the surface of broken masonry units as an adhesive. Material can be applied up to 10 minutes after mixing with water, depending on temperature, relative humidity and type of finish specified. Do not install material bellow 40°F or above 90°F. Check for halo staining by application on inconspicuous surface. Prevent halo stains by recessing ¼" to ½" from surface of masonry.

Injection Application

1. Fill injection syringe with mixed IG10.
2. Insert syringe into crack until the tip of the needle reaches the back of the crack.
3. Inject IG10 into the crack, slowly removing the syringe as IG10 fills the back of the crack.
4. When syringe is empty refill it and reinsert it into the crack at its previous depth then continue to fill the crack with IG10.
5. Continue to fill the crack until the IG10 has reached a depth 1/4"-1/2" from the surface of the masonry unit.

Adhesive Application

1. If using pins, apply IG10 to the surface of the pins and the pin holes and insert pins.
2. Using a trowel, brush or gloved hand, apply mixed IG10 to each broken face of the masonry unit.
3. Align the broken masonry pieces and press them together.
4. If needed, use clamps to hold the masonry pieces in place as the IG10 cures.
5. Remove any extra material that squeezes out of the cracks of the stone and rake back to ¼" to ½" immediately after reassembly.

Cleaning

1. Clean all tools and surfaces with clean water immediately after application before the mortar has time to dry.
2. Remove surface smears/residue immediately by repeated application of clean water and brushing until all material is removed. Avoid contact of contaminated water or brush with repair area.
3. Remove hardened material mechanically.

Curing and Capping

IG10 is ready to rake back when thumbprint hard. Material can be hand tooled up to 1 hour after mixing. When material becomes too hard to tool by hand it can be tooled with power stone carving tools. Always tool away from edges, corners, projections, and towards stone.

1. Protect finished repair from weather and direct sunlight by keeping it covered with plastic or burlap for 24 hours before exposing it to temperatures below 40°F or above 90°F.
2. 24 hours after application of IG10, apply a matched capping compound to complete the surface repair of any remaining cracks. Use the appropriate corresponding Heritage Repair Mortar for cracks deeper than 1/4" and Dispersed Hydrated Lime Spachtel for cracks shallower than 1/4. Refer to the datasheets of these products for application instructions.

Storage

US Heritage Group IG10 has a shelf life of 1 year when stored at a constant temperature and relative humidity in its original sealed container.

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