

MasterInject® 1230 IUG

Low-viscosity polyurethane injection resin

FORMERLY CONCRECIVE® 1230 IUG

YIELD

Volume depends on mix ratio of water to resin and moisture in concrete and surrounding soil.

PACKAGING

MasterInject® 1230 IUG is packaged in 5 gallon (19 L) pails. An optional 0.2 gallon (0.76 L) bottle of 1200 Series Accelerator may be purchased separately.

SHELF LIFE

1 year when properly stored

STORAGE

Store in unopened containers in clean, dry conditions less than 80° F (27° C), ideally between 40 and 60° F (4 and 16° C). The shelf life is significantly reduced once the container is opened.

VOC CONTENT

0 g/L or 0 lbs/gal less water and exempt solvents.

DESCRIPTION

MasterInject® 1230 IUG is a one-component polyurethane hydrophobic injection resin with an optional accelerator to control setting times. It reacts with water to form a resilient and flexible plug that seals leaks in concrete structures. The required rate of expansion and reaction to water can be altered by temperature or by the amount of accelerator used. MasterInject® 1230 IUG has been tested by UL to NSF standard 61, for use with potable water.

Features

- Hydrophobic
- Accelerator enhanced for variable reaction time
- Cures as a closed-cell polyurethane foam
- Flexible in cured state
- Polyurethane resins
- Installs with single- or plural-component injection equipment

Benefits

- Repels water in cured state
- Controllable rate of expansion
- High tensile strength; excellent adhesion and flexibility
- Withstands thermal expansion/contraction, wet/dry, and freeze/thaw cycles as well as crack movement
- Excellent resistance to fungi, gasses, and chemicals
- Versatile installation methods

APPLICATIONS

- Sealing leaking hairline cracks and joints in concrete and masonry
- Sealing large leaking cracks and joints in concrete and masonry
- Sealing rock pockets and joints
- Tunnels
- Manholes
- Culverts
- Dams
- Water-treatment plants

LOCATION

- Horizontal and vertical surfaces
- Interior or exterior

TECHNICAL DATA

COMPOSITION

MasterInject® 1230 IUG is a one-component polyurethane resin.

Test Data

UNCURED 1230 IUG RESIN

PROPERTY	RESULTS	TEST METHODS
Solids, %	100	ASTM D 1010
Viscosity, cps, depending on temp	450 – 700	ASTM D 638
Color	Pale yellow	
Density, lbs/gal (kg/L)	9.0 (1.1)	ASTM D 1638
Flash point, ° F (° C)	> 390 (199)	ASTM D 93
Corrosiveness	Noncorrosive	
Chloride permeability, coulombs	Very low range	AASHTO T-277 (according to ASTM C 1202-91, table 1)
Reaction time, sec, depending on temp and amount of accelerator used	29 – 100	

UNCURED 1200 SERIES ACCELERATOR

PROPERTY	RESULTS	TEST METHODS
Color	Clear liquid	
Viscosity, cps, 77° F (25° C)	40 – 60	
Flash point, ° F (° C)	> 302 (150)	

CURED 1230 IUG

PROPERTY	RESULTS	TEST METHODS
Tensile strength, psi	80 (±10)	ASTM D 638
Elongation, %	80	ASTM D 3574
Shrinkage, %, by volume	3.44	
Toxicity	Nontoxic	

Test results are averages obtained under laboratory conditions. Expect reasonable variations.

HOW TO APPLY

SURFACE PREPARATION

1. Clean crack with a wire brush and, if applicable, seal surface with the appropriate sealing material.
2. Drill holes at a 45 degree angle to intersect the fissure being filled at approximately the mid-section of the concrete thickness. Alternate holes whenever possible, from one side of the fissure to the other. The spacing is determined by the width of the crack in relation to the concrete thickness. Minimum spacing should be equal to the concrete thickness where possible. THE INTENTION IS TO FACILITATE THE COMPLETE FILLING OF VOIDS WITH CATALYZED RESIN.
3. Install injection ports or packers in $\frac{1}{2}$ – $\frac{5}{8}$ " (13 – 16 mm) holes so that the top of the sleeve is just below the concrete surface. Flush the cracked concrete or joint with potable water before pumping.

MIXING

1. Mix the predetermined accelerator dosage with MasterInject® 1230 IUG Resin. See chart to determine amount of accelerator required.
2. Run a small test if time-to-gel is critical. Add the accelerator to the resin at the specified ratio, then add 5 – 10% water content by weight, based on the expansion desired. Reaction or gel time can be adjusted using the accelerator provided.

Reactivity (approximate), Temp 70° F (21° C)

% ACCELERATOR USED (relative to resin)	REACTION TIME (sec)
1	100
2	70
3	40
6	35
10	29

APPLICATION

Inject the product into the concrete beginning at the lowest packer or beginning with the first packer that was flushed on the horizontal crack. Move to the next adjacent port when material appears from a packer. Repeat the injection of the first packer after pumping a number of ports. Pressure will vary from 200 – 2,500 psi (1.4 – 17.2 MPa), depending on crack thickness, concrete thickness, and contamination. Re-inject water into the crack to cure resin left behind in the drill hole.

CLEAN UP

Remove all MasterInject® 1230 IUG from equipment and tools using acetone or other solvents. Follow proper waste disposal methods for solvents. Cured resin is inert; dispose of it by standard means.

FOR BEST PERFORMANCE

- MasterInject® 1230 IUG is sensitive to moisture and elevated temperatures. Product should be stored in dry conditions less than 80° F (27° C) and ideally 40 – 60° F (4 – 16° C). The shelf life is significantly reduced once the container is opened.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current versions.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

HEALTH, SAFETY AND ENVIRONMENTAL

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, e-mailing your request to basfbscst@basf.com or calling 1(800)433-9517. Use only as directed. **For medical emergencies only, call ChemTrec 1(800)424-9300.**

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