

PRODUCT DATA

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Maintenance of
Concrete**CONCRESE[®] 1230 IUG**

Low-viscosity polyurethane injection resin

Description

Concresive[®] 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.

Concresive[®] 1230 IUG has been tested by UL to NSF standard 61, for use with potable water.

Yield

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

Packaging

Concresive[®] 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.

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

Where to Use

APPLICATION

- 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

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 1/2 – 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.

Technical Data

Composition

Concresive® 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.

Mixing

1. Mix the predetermined accelerator dosage with Concresive® 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 Concrecise® 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

- Concrecise® 1230 IUG is sensitive to moisture and somewhat sensitive to 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 and Safety

CONCRECISE® 1230 IUG RESIN

Warning

Contains diphenylmethane diisocyanate, methylenbis (isocyanatebenzene) polymer, butyl maleate.

Risks

Severe skin and eye irritant. Causes respiratory irritation. May cause dermatitis and allergic responses. Potential skin and/or respiratory sensitizer. Ingestion may cause irritation of mouth, throat and stomach with nausea and abdominal pain.

Precautions

Use only with adequate ventilation. Avoid contact with skin, eyes and clothing. Keep container closed when not in use. Wash thoroughly after handling. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

For additional information on personal protective equipment, first aid, and emergency procedures, refer to the product Material Safety Data Sheet (MSDS) on the job site or contact the company at the address or phone numbers given below.

Proposition 65

This product does not knowingly contain materials listed by the State of California as known to cause cancer, birth defects or other reproductive harm.

VOC Content

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

CONCRECISE® 1200 SERIES ACCELERATOR

Caution

Risks

Harmful if inhaled. May cause lung irritation. Causes eye burns and skin irritation. Harmful if swallowed.

Precautions

KEEP OUT OF THE REACH OF CHILDREN. Use with adequate ventilation. Avoid contact with skin, eyes and clothing. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel ill, seek medical advice.

First Aid

If breathing is difficult, move person to fresh air. In case of eye contact, flush immediately with plenty of water for 15 minutes and call a physician. For skin, wash thoroughly with soap. If affected by inhalation of vapor or spray mist, remove to fresh air. Ingestion: Drink two glasses of water, then induce vomiting by taking Ipecac Syrup, salt water or by placing finger at back of throat. DO NOT give anything by mouth to an unconscious person.

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Proposition 65

This product does not contain materials listed by the state of California as known to cause cancer, birth defects, or reproductive harm.

VOC Content

0 lbs/gal or 0 g/L.

**For medical emergencies only,
call ChemTrec (1-800-424-9300).**

**BASF Construction Chemicals, LLC –
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