

CONCRESlVE® 1250

Urethane injection resin for stopping gushing water

DESCRIPTION:

CONCRESlVE® 1250 is a one component polyurethane injection resin designed for sealing gushing water leaks of high pressure and volume from large voids or openings, in and around concrete or gunite structures. This resin reacts with water to form a rigid closed cell foam that is resistant to most organic solvents, mild acids, alkali, microorganisms and fungi growth. Desired rate of expansion and reaction to water can be altered by temperature or the amount of accelerator used.

RECOMMENDED FOR:

- Stopping gushing water from rock faults or gravel layers
- Sealing large leaking cracks and joints in concrete or masonry structures
- Repair of tunnels, manholes, culverts, dams and water treatment plants

FEATURES/BENEFITS:

- Resistant to corrosive environments
- Cured resin withstands thermal expansion/contraction, wet/dry cycles, freeze/thaw cycles
- Excellent resistance to mild acids, most organic solvents, fungi, gasses and chemicals normally found in soil and commercial structures
- Application using single or plural component injection equipment

PACKAGING/ESTIMATING:

CONCRESlVE 1250 is packaged as one unit consisting of a 5 gal (19 L) pail with a large bung-type pour spout, filled and sealed under dry nitrogen, and a 0.2 gal (0.76 L) bottle of accelerator. Volume depends on mix ratio of water to resin and moisture in concrete and surrounding soil.

PERFORMANCE DATA:

Uncured 1250 Resin

Solids (ASTM D1010)	100%
Viscosity (ASTM D1638)	90 to 150 cps (depending on temp.)
Color	Dark brown
Density (ASTM D1638)	9.3 lb/gal (1 kg/L)
Flash Point (ASTM D93)	Over 350 °F (177 °C)
Corrosiveness	Non-corrosive
Reaction Time	6 minutes to 20-30 seconds (Depending on temperature and amount of accelerator used)

1250 Accelerator

Color	pink clear liquid
Viscosity	15 cps at 68 °F (20 °C)
Flashpoint	> 315 °F (157 °C)
Cured	
Tensile Strength (ASTM C190-1963)	56 psi (0.384 MPa)
Compressive Strength	895 psi (6.14 MPa)
Shear Bond	255 psi (1.75 MPa)
Toxicity	Non-toxic

NOTE: If actual injection is into the ground, test and confirm strength properties, for they will vary according to soil conditions.

MIXING:

Mix the pre-determined accelerator with CONCRESlVE 1250. See chart below to determine amount of accelerator required.

Reactivity (approximates):

Temperature °F (°C)	% of accelerator used	Gel time
50 (10)	2	19.0 min.
	6	7.5 min.
	10	4.5 min.
90 (32)	2	5.5 min.
	6	2.0 min.
	10	0.5 min.

NOTE: It is advisable to run a small test if time to gel is critical. Reaction or gel time can be adjusted using the accelerator provided.

The following information regarding application is provided as a brief overview. For detailed instructions before use of this product, consult the CONCRESlVE 1210, 1230 & 1250 Installation Bulletin (6I12)

APPLICATION:

Clean crack with a wire brush and seal surface with a sealing material (i.e. hydraulic cement - EMACO® 503, epoxy gel - CONCRESlVE® Paste SPL, oakum rope soaked in CONCRESlVE 1250). Drill injection holes at a 45 degree angle to the surface of the concrete, intersecting the crack and penetrating the concrete through 1/2 its thickness. Space between injection ports should be equal to 1/2 the thickness of the concrete.

Install injection ports or packers in 1/2 in. to 5/8 in. (13 to 16 mm) holes so that the top of the sleeve is just below the concrete surface. Flush both the cracked concrete and the injection equipment prior to pumping. Inject 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 psi to 2,500 psi (1.38 to 17.24 MPa) depending on crack thickness, concrete thickness and contamination. Re-inject water into the crack to cure resin left behind in the drill hole.

Remove all CONCREXIVE 1250 from equipment and tools using acetone or other solvents. Follow proper waste disposal methods for solvents. Cured resin is an inert material and can be disposed of by standard means.

LIMITATIONS:

- CONCREXIVE 1250 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 between 40 and 60 °F (4 and 16 °C). The shelf life is significantly reduced once the container is opened.
- CONCREXIVE 1250 should be installed when work areas are well ventilated. Avoid contact with eyes and repeated contact with the skin. Use of rubber gloves and safety face shield is recommended. Familiarization with MSDS guidelines is critical.

RELATED BULLETINS:

Material Safety Data Sheet — CONCREXIVE 1250

Installation Bulletin 6I12 — CONCREXIVE 1210, 1230
& 1250

Specification Bulletin 6S12 — CONCREXIVE 1210, 1230
& 1250

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