



# CHEMRIGID

Moisture activated polyurethane chemical grout  
to control large water infiltrations in concrete structures

CHEMRIGID is a moisture activated polyurethane chemical grout sealant containing prepolymer isocyanates (MDI).

CHEMRIGID is a single component, solvent free, non toxic product which reacts with water to create a hydrophobic, rigid and chemically resistant foam. Once the chemical reaction is complete, the foam becomes a completely inert material. This polyurethane reacts with water rapidly and can expand up to 30 times its volume to stop large volume and high pressure water infiltrations. It can be used to fill large voids either in or behind concrete or masonry structures.

## ■ USES

CHEMRIGID is used to stop large volume and high pressure water infiltrations to restore the waterproof properties of the concrete structure. It can be used for soil stabilization and the filling of large voids.

### TYPICAL USES:

- To stop high pressure and large volume water infiltrations
- Manholes and vaults
- Soil stabilization
- Basement foundations
- To quickly fill large voids in concrete or rock structures

## ■ PRODUCT FEATURES

- Highly expansive rigid, closed cell foam capable of displacing large amounts of water during its cure
- 100% water reactive resin, non flammable, V.O.C. compliant material
- Low Shrinkage
- Capable of consolidating soils and sands
- Expansion rate can be controlled by varying accelerator %
- Environmentally friendly, becoming completely inert after cure
- Low viscosity
- Remains rigid after cure
- Easy to use
- Highly resistant to most organic solvents, alkalis, micro-organisms and mild acids

## ■ SURFACE PREPARATION

In order to properly prepare for material injection drill holes and install injection ports. To determine pattern, angle and depth of the drill holes and injection port placement a thorough study is suggested. Please consult your local BMQ SOLUTIONS representative for installation procedures.

## ■ PRIMING

No primer required.

## ■ PRODUCT MIXING

- Add between 1% to 10% Accelerator to Resin depending on the desired setting time.
- Mix thoroughly until homogeneous.

## ■ PRODUCT APPLICATION

- Install using a single component injection pump.

## ■ CURING

CHEMRIGID is a self-curing material.

## MATERIAL PHYSICAL PROPERTIES @ 25°C (77°F)

CURED PROPERTIES		LIQUID PROPERTIES	
Density ASTM D3574 Test A	1.074	CHEMRIGID Resin	RIGICEL Accelerator
Tensile Strength ASTM D3574 Test E	386.1 KPa (56 psi)	Density	1.15 0.990
Bond Strength	0.68 MPa (bending) 1.75 MPa (shearing)	Viscosity	40 cps 15 cps
Shrinkage ASTM D-2126	0 %	Color	Dark brown Clear
Toxicity	Non-toxic	Solids content	100 % -
		Flash point	>185°C (365°F) 160°C (320°F)
		Corrosiveness	Non corrosive Amine (corrosive)



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## ■ ESTIMATING / YIELD

Yield will be a function of the temperature of the unit injected and the percentage of the accelerator used. Estimation of material required will depend on the type of structure injected.  
BMQ SOLUTIONS recommends contacting an approved applicator for a more precise evaluation of the quantities required.  
CHEMRIGID Resin: 20 kg (5 gal) container  
RIGICEL Accelerator: 900 ml (16 oz) container

## ■ PRECAUTIONS / RESTRICTIONS

Minimum application temperature, 5°C (41°F).

## ■ PACKAGING

### CHEMRIGID :

Resin: 20 kg (5 gal, 44 lbs)) container

### RIGICEL :

Accelerator : 2 kg (0.5 gal, 4.4 lbs) container

## ■ RECOMMENDED TOOLS

The following tools will assure a cost effective, satisfactory installation:

- Percussion drill with 3/8" drill bit
- 3/8" injection packers with zerk fittings
- Single component injection pump  
(Similar to the Titan 440E modified for polyurethane injection)  
*Please contact your local BMQ SOLUTIONS representative or approved applicator for details concerning equipment and its use.*

## ■ CLEANING

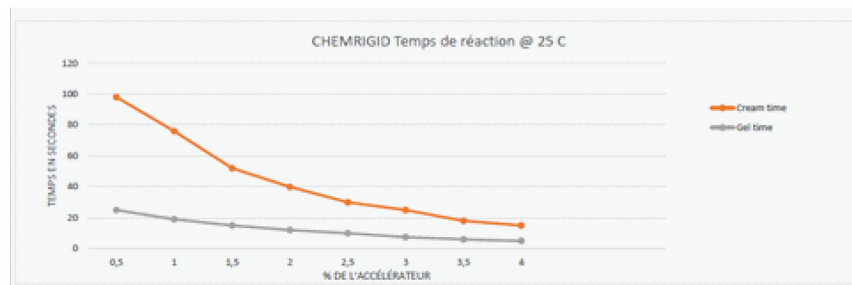
Use an appropriate polyurethane cleaner to clean all tools and equipment.

## ■ STORAGE

Store in cool dry area avoiding all moisture. Keep container well-sealed between uses.

## ■ SAFETY

See Material Safety Data Sheet.



BMQ SOLUTIONS WARRANTS that the product conforms to its chemical description and is reasonably fit for the purpose stated on its Technical Data Sheet when used in accordance with its directions. BMQ Solutions makes NO OTHER WARRANTY either expressed or implied.  
Buyer assumes all risk in handling.

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