CHEM SEMIRIGID

Moisture activated polyurethane chemical grout sealant
used to control water infiltration in concrete

CHEM SEMIRIGID is a moisture activated polyurethane chemical grout sealant containing prepolymer isocyanates (MDI). CHEM SEMIRIGID is a single component,solvant free non toxic product which reacts with water to form a hydrophobic semi rigid and chemically resistant foam. Once the product has completed its reaction, the foam becomes a completely inert material. CHEM SEMIRIGID reacts rapidly with water and can expand up to 15 times its volume.

USES

CHEM SEMIRIGID is used to stop high pressure water infiltrations and to waterproof concrete structures.

TYPICAL USES:

- Bridges and tunnels
- Manholes and vaults
- Basement foundations
- Crack and joint repairs when movement of cracks or joints is moderate
- To quickly fill medium sized voids in concrete
- Stopping high pressure and high volume water infiltration

PRODUCT FEATURES

- Semi rigid hydrophobic closed cell foam
- 100% water reactive, non flammable, V.O.C. compliant grout
- Low Shrinkage
- Environmentally friendly, becoming completely inert after cure
- Low viscosity
- Expansion rate can be controlled by varying the accelerator %
- Remains semi rigid after cure
- Easy to use
- Highly resistant

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% and 5% Rigicel Accelerator to Resin depending on the desired setting time.
- Mix thoroughly until homogeneous.

PRODUCT APPLICATION

Install using a single component injection pump

CURING

CHEM SEMIRIGID is a self-curing material.

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

UNCURED PROPERTIEST	
CHEM SEMIRIGID Resin	
Solids content ASTM D1259	100 %
Viscosity ASTM D4889	160 cps @ 20ºC
Color	Dark brown
Density ASTM D4659-B	1,114
Flash point ASTM D93	>COV 185ºC
Corrosiveness	Non-corrosive
RIGICEL Accelerator	
Viscosity ASTM D4889	15 cps @ 20ºC
Flash point ASTM D93	>COV 160ºC Liquide
Appearance	Clear liquid (Amine odor)
Toxicity	Non-toxic

CURED MATERIAL	
Toxicity	1,074
Tensile Strength ASTM D3574 Test E	482,6 KPa (70 lbs/po2)
Elongation ASTM D3574 Test E	50 %
Toxicity	Non-toxic

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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.
Resin: 20 kg (5 gal) pail
Accelerator: 900 ml (16 oz.) can

PRECAUTIONS / RESTRICTIONS

Minimum application temperature, 5ºC (41ºF).

PACKAGING

CHEM SEMIRIGID :
Resin: 20 kg containers

RIGICEL :
Accelerator: 900 ml containers

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

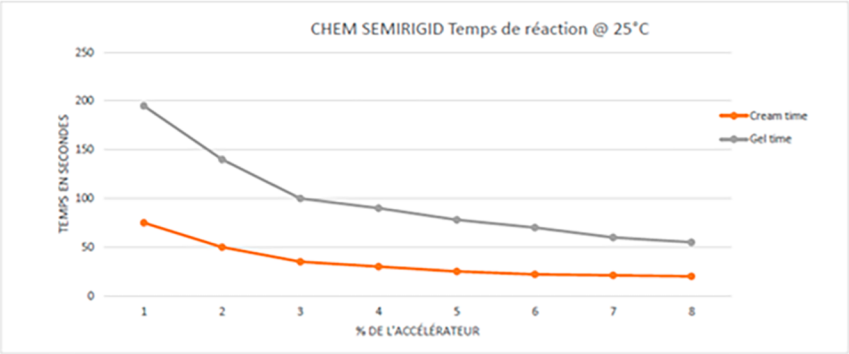
Use an appropriate polyurethane cleaner to clean all tools and equipment.

STORAGE

Store in cool dry area avoiding all moisture. Keep container well-sealed between uses. Do not allow material to freeze.

SAFETY

See Material Safety Data Sheet.



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