



CHEM-CRETE® RIGID FOAM CCC530

Two Component Hydro Active Water Cut-Off
Polyurethane Resin, Expands 16 Times

PRODUCT DESCRIPTION

CHEM-CRETE RIGID FOAM CCC530 is a low viscosity two component solvent-free ready-to-use expansive and hydro active Polyurethane Injection System. CHEM-CRETE RIGID FOAM CCC530 reacts quickly in contact with water and expands to form a tough closed-cell polyurethane foam that stops high pressure or fast running water.

CHEM-CRETE RIGID FOAM CCC530 can be pumped using single or two component injection pumps.

FIELDS OF APPLICATION

CHEM-CRETE RIGID FOAM CCC530 is extensively used to inject leaking structures for stopping the running water flows in the following fields:

- Wastewater treatment plants.
- Water reservoirs and tanks.
- Swimming pools and fountains.
- Foundations, basements and abutments.
- Underpasses, tunnels, etc.

Basic applications of CHEM-CRETE RIGID FOAM CCC530 for:

- Sealing of damp and wet cracks in concrete or stone.
- Filling of voids in shale, rock fissures, faults, and gravel layers.
- Sealing of leaking dormant cracks and cracked concrete/masonry.
- Injection of water bearing cracks and honeycombs under most difficult conditions, e.g.: high pressure and strong ground water flows.
- Soil stabilization increasing the bearing capacity of sandy soil.

PRODUCT FEATURES

- Two component ready-to-use system.
- Low viscosity permits reliable penetration.
- Rapid reaction on contact with water producing an expanded closed cell foam that stops water flow instantly.
- Good adhesion to substrate.
- Suitable for injection with one or two component injection pumps.
- Cured CHEM-CRETE RIGID FOAM CCC530 resistant to most organic solvents, mild acids, alkali and microorganisms.

PACKAGING

PACKAGE	COMPONENT A – FOAM (CCC530)	COMPONENT B – ACCELERATOR (CCC530X)
1 KG (2.2 LB KIT)	30 OZ (0.9 LITER) CAN	1 OZ (30 MILLILITER) JAR
47.00 LB (21.26 KG) UNIT	45 LB (24.12 KG) PAIL	30 OZ (0.9 LITER) CAN
498 LB (226 KG) UNIT	463 LB (210 KG) FOAM	35 LB (15.9 KG) PAIL

TECHNICAL DATA

Technical Data for Uncured Parts

Property @ 25°C (77°F)	FOAM CCC530	ACCELERATOR CCC530X	Test Method
Solids, 100%	100%	100%	-
Viscosity, cPs	150	15	Brookfield
Color	Brown	Transparent liquid	-
Density, Lb/Gal (Kg/L)	9 (1.08)	8 (0.96)	ASTM D1475
Flash point, °F(°C)	266 (130)	266 (130)	COC Method

Technical Data for Cured Parts

Property @ 25°C (77°F)	Value	Test Method
Density, Lb/Gal (Kg/L)	9 (1.08)	ASTM D1475
Tensile Strength, psi (MPa)	50 (0.35)	ASTM C-882
Compressive Strength, psi (MPa)	820 (5.6)	ASTM C109
Elongation	6%	ASTM D638

Reactivity: Free expansion up to 16X original size. Expansion is dependent upon pH level of water and confinement.

APPLICATION DATA

Consumption: Variable depending on moisture content and water pressure, nature of application, etc.

Limitations: application at ambient temperatures below approx. 5°C is not recommended. Exposure to temperatures exceeding 65 °C for prolonged periods is not recommended.

Injection of CHEM-CRETE RIGID FOAM CCC530:

Pre-treatment of Substrate: the substrate must be sound, clean and free from oil and grease. All loose material and laitance along the crack length should be removed with suitable hand tools such as needle guns, wire brushes or angle grinders.

Injection Packers: two types of injection packers are available, adhesive (surfaces) packers and drilled packers. The selection of the packer type depends on the thickness of the substrate and the nature of the crack (width, depth, shape and propagation). The crack nature will affect the operating pressure used in the injection process. Normally, drilled packers can be operated at higher pressures than adhesive packers.

Setting Injection Ports: the crack nature and substrate will affect the distance between the packers. Generally, packers should be installed at distances between 20-50 cm along the crack length.

Adhesive Packers are recommended mainly in dry or slight damp concrete. Adhesive packers are recommended for wide or surface cracks and when the substrate thickness is small.

Injection of minor cracks is possible but subject to site inspection and demonstrations and will be dependent on a slow operating injecting pressure.

Drilled Packers can be recommended for both dry and wet concrete and for all sizes and nature of cracks. Drilled packers can be installed along the crack length or alternating on both size of the crack length. When drilling on the side of the crack at 45-degree inclination a special care must be taken in insuring that drilled holes crosses the crack section.

Sealing of Cracks: sealing of leaking cracks and joints is not required. Drilled packers are used in the injection of CHEM-CRETE RIGID FOAM CCC530. Pour the mixture of CHEM-CRETE RIGID FOAM CCC530 into a suitable injection pump. For a wall, commence injection at the lowest point. For a slab, commence the injection at one side of the crack then progress to the adjacent packer, until the whole crack length is completely injected. Due to the low viscosity and long pot life of CHEM-CRETE RIGID FOAM CCC530 and with the adequate injection pressure, the injection resin will flow, fill and seal all voids and subsiding cracks.

Mixing: pour the accelerator component "B" into component "A" and shake well for a minimum 2-3 minutes to insure a homogeneous mix of the two components. It is possible to mix additional amount of **Accelerator** for strong gushing water with high at pressure. The additional amount will accelerate the foaming process.

Pot life: the mixed CHEM-CRETE RIGID FOAM CCC530 do not possess any pot life. The activation starts upon contact with water or moisture.

- Induction: 35-40 seconds starts the reaction.
- In 60-90 seconds, the water and resin start reacting.
- Complete reaction is 3-5 minutes and becomes like a creamy gel. This stage is considered tack free.
- Curing time is 3-5 minutes.

Curing: allow the injected CHEM-CRETE RIGID FOAM CCC530 to cure for at least 48 hours before removing, of any expanded access outside the crack surface. Remove the injection packers using angle grinders. Repair irregularities in the concrete surface using CHEM-VERSATILE GEL, if needed.

Quick reference chart: refer to CHEM-CRETE's polyurethane grouts' quick reference charts for more information on our polyurethane grouts specifications and uses.

CLEANING

Tools and equipment must be cleaned immediately after use with Blended Solvents, Xylene or Toluene, etc.

Caution: Solvents are flammable and also may affect the injection pump's seals if exposed to solvent for long period.

Spills: Cover spill with absorbent materials. Remove from surface and deposit in an open empty container. Add equal amount of water and stir until foam develops. Allow at least 48 hours for curing before disposal.

STORAGE

CHEM-CRETE RIGID FOAM CCC530 is sensitive to moisture and to high storage temperatures. Store at temperatures 5°C to 16°C under dry conditions

. Storage temperature should not exceed 27°C. Shel life is minimum 12 months in product's original unopened containers.

SAFETY PRECAUTIONS

After full cure CHEM-CRETE RIGID FOAM CCC530 is physiologically harmless. Keep the resin and hardener away from the eyes, mouth and skin. Do not breathe in the vapors. The uncured mixture can cause irritation of the skin. For best protection, wear rubber or plastic gloves. In case of contamination, wipe away resin or hardener immediately from the skin using paper towels and then wash with soap and water or hand cleaning detergent.

TECHNICAL ASSISTANCE

Please contact International Chem-Crete Corporation for Technical Personnel.

WARRANTY

LIMITED WARRANTY: International Chem-Crete Inc. warrants that, at the time and place we make shipment, our materials will be of good quality and will conform to our published specifications in force on the date of acceptance of the order.

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