

MAX 9030 SM-PU 200

(Polyurethane Injection Resin – Semi Rigid Foam)

DESCRIPTION:

MAX 9030 SM-PU 200 two component, solvent free, polyurethane injection grout ideally suitable for crack injection/water leaks in concrete and masonry structures. Reaction with water yields a rigid polyurethane foam (slightly flexible). To be injected with a one-component pump. Use with 6 to 10% catalyst. The formation of gas² makes the foam penetrate very well into the cracks. The reaction speed can be adapted easily by varying the accelerator or catalyst content from 6 to 10 %. The more catalyst is added, the faster the reaction proceed. The end product neither shrinks nor swells. A good compression strength is obtained in a very short time.

AREAS OF APPLICATION:

- Water stop system for running water in – Defective concrete – (crack & honeycomb)
- Concrete joints
- Drinking water tanks & reservoirs
- Waste water tank
- Sewers, manholes, utility boxes, etc.
- Dams & canals
- Tunnels
- Brick / stone masonry
- Pipe intrusions
- Soil stabilization

ADVANTAGES:

- Viscosity – Very low viscosity benefits penetration into hairline cracks
- Solids – 100% solid & solvent free composition helps in shrinkage free grout
- Foaming – On reaction with water foams around 30 times which benefits filling of wider cracks & honey combing of concrete structures (hydrophobic in nature)
- Bonding – Bonds strongly to dry & wet concrete, bricks & stones
- Hygiene - It is safe & suitable for drinking water contact
- Non-toxic – It is CFC & solvent free hence non-toxic

TECHNICAL INFORMATION:

1k PART- A

- **Appearance** – Yellowish Brown Liquid
- **Viscosity @25°CmPa.s** - 100-200
- **Solid Content %** - 100
- **Flash point °C** - >180
- **Density @25°Cgm/cm3** - 1.12-1.16

1k PART- B

- **Appearance** – Clear to yellowish Liquid
- **Viscosity @25°CmPa.s** – 20-30
- **Solid Content %** - 100
- **Flash point °C** - >180
- **Density @25°Cgm/cm3** - 0.91-0.97

PERFORMANCE CHARACTERSTICS:

- **Appearance** : Whitish yellow foam
- **Water Solubility** : Hydrophobic
- **Cream Time (second)** : 00-10
- **Rise Time(second)** : 30-50
- **Foam expansion (%)** : 3000-4000
- **Bulk Density @25°C (kg/m3)** : 15-20
- **Flexural strength (N/mm2)** : 10-15
- **Compressive (N/mm2)** : 40-50
- **Corrosiveness** : Non-corrosive
- **Toxicity** : Non toxic
- **Flammability** : Non flammable

METHOD OF APPLICATION:

1. SURFACE PREPARATION

- **MAX 9030 SM-PU 200** PU foam Injection resin is a high quality, low viscous PU injection foam resin which on contact with water expands its volume & cures to very dense, rigid & flexible foam with a very fine cellulose structure.
- Due to its high capillary penetration and activity in damp & water bearing structure, it seals the cracks of more than 0.2 mm in built, hence the material is ideal for filling gaps & cavities at constant mixing stability. On contact with water, the foam formation begins after approximately 15 seconds at ambient temperature. The reaction speed depends on temperature of the mixed material, building structure & contact water.



Temperature more than 20°C accelerates the foam formation & curing.

- Prior to injection procedure check the nature of building structure, type of cracks and hydrostatic conditions & water quality. Clean the cracks & crack edges so that the source of water leakage can be detected.
- Remove all spalled layers of plasters from the area of the injection level and patch all joints and defective brickwork with quick drying cement mortar. Drill holes taking into consideration the actual size (thickness) of the wall/concrete member and the size & length of injection packers to be used. The packers must be fixed tightly in the drill holes
- In the case of crack injections into brickwork and horizontal water stops, drill the holes into the bricks to ensure that the mechanical packers are fastened tightly. When tightening the packers, make sure that the injection hose rests comfortably on the jerk or button head fittings.

2. MIXING:

- Empty components A and B which are provided according to the required mixing ratio of 10:1 (parts by volume) or measured out in separate containers by the user - completely into a mixing vessel and mix homo-generously.

3. APPLICATION – INJECTIONPROCEDURE:

- **MAX 9030 SM-PU 200** PU foam Injection resin is a low viscous material, to be injected by means of a single or two component injection pump.
- Mixed material must be used immediately because high air humidity may cause a skin formation over the material surface. In case skin is formed, remove the skin prior to use of the material otherwise the pump will get chocked.
- The workability of the mix is approximately 2–3 hours. Start injecting at a pressure depending upon the nature of the building structure, hydrodynamic & hydrostatic condition and the desired depth of penetration.
- Carry out the injection at intervals so that it can be concluded from the reaction of the material with moisture inside and decided whether to continue or stop the injection process

- The material can be injected at temperature of more than 50°C. The best results can be achieved between 15°C to 25°C. Higher initial temperatures accelerate the reaction. For durable & complete crack sealing, a secondary injection using **MAX 9030 SM-PU 200** PU plain injective is necessary depending on the object. The secondary crack injection usually is carried out through the same holes. In case the secondary injection is carried out much later then it may be necessary to install new packers in different position.

4. FINAL WORK:

- After the curing process of the injection resin (approx. 24 hours after the injection), remove the packers and close the drill holes with suitable mineral building materials (quick-binding cement, swelling mortar)

5. FINISHING:

- Clean the equipment's & tools thoroughly with a PU cleaner at any time when work is interrupted for a longer period of time & immediately after use. The cured material can be soften by using PU cleaner & removed by scrapping / pressure.

PACKING: 10 +1 kg

HEALTH & SAFETY:

- Use rubber hand gloves & safety goggles, while using **MAX 9030 SM-PU 200**
- In case of contact with skin, wash with plenty of water.
- Keep out of reach of children

STORAGE & LIFE:

Store at 5°C to 30°C and protected from moisture. Best before one years from the date manufacture when in sealed pack and stored in cool & dry place in unopened condition away from direct sunlight.

TECHNICAL INFORMATION & SERVICES:

Further information and advice, including practical demonstration are freely available with the Technical Service Department of **SEMITRONE CONCHEM PVT LTD - AHMEDABAD.**



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