

ROCKMAX[®] PU100



WATER ACTIVATED POLYURETHANE FOAM INJECTION TO STOP WATER LEAKAGE

INTRODUCTION

Rockmax PU100 is a hydrophobic water activated injection foam grout and soil stabilization based on polyurethane. It is designed to stop water leakage by pressure injection through cracks, honeycombs, voids and/or damaged concretes. The material will react immediately when contact with water and create expansion to stop water leakage. The reaction time can be adjusted by percentage of accelerator. The cured material is semi-flexible and constant volume.

AREA OF USES

Rockmax PU100 can be used to seal active leaks in above or below grade concrete structures including with hairline cracks, pipe joints, expansion joints, pipe penetrations, wide cracks, etc.

- Tunnel leakages.
- Drinking water tanks.
- Basement leakages.
- Dams, reservoirs, pipes, subways.
- Diaphragm and retaining walls.

ADVANTAGES

- Fast reaction time.
- Expansion more than 30-40 times.
- Good bonding to concrete substrates.
- Solvent free.
- Low viscosity, excellent penetration.
- Gel time can adjustable.

TECHNICAL PROPERTIES

Rockmax PU100 properties:

Appearance: Dark brown liquid
Solid content: 100%
Density: 1.10 g/ml
Viscosity: 140 – 160 mPa.s
Flash point: 180 °C

Accelerator (part B) properties:

Appearance: Clear liquid
Solid content: 100%
Density: 0.95 g/ml
Viscosity: 20 - 40 mPa.s
Flash point: 170 °C

Mixed properties:

Density: 1.1 g/ml
Viscosity: 200 – 220 mPa.s

Reaction (at 30°C)

Initial time: 15-30 second
Gel time: 60-70 second

Physical properties of cured material (10% accelerator)

Appearance: Yellow foam
Expansion: 3000-4000%
Tensile Strength: approx 2 N/mm²
Elongation: approx 20 – 40%
Salability in water: Not
Apply on drink water: Yes
Application Tem: +5°C – 40°C degree

MIX RATIO

Rockmax PU100 and accelerator (part B) is supplied separately to allow adjustment of gel time and to provide long shelf life. A higher percentage of accelerators added will increase reactive speed, expansion volume and lower the density of the product accordingly. Since the end product is of cellular structure, a higher density is favored for best waterproofing properties. We recommended mix ratios are between 5% to 10% of accelerator added. In case of high water flow rates or low ambient temperatures, ratios maybe increase to 15%.

PREPARATION

Investigate the temperature and humidity of the site environment for determine the pot life of the mixed. Do not over mix the material more than the amount will be pumped. In case of high temperature and high humidity, the percentage of accelerator must be less than low temperature. In completely dry cracks, it is necessary to pre injection of water prior to start application.

APPLICATION

The mixture can be used conjunction with single line injection pumps together with metal injection packers. Holes are drilled on alternating sides along the course of the crack at an interval of approximate 20-25cm. Insert packer to the drilled holes and start injection from bottom to top. Inspect the material injected after full cured (approximate 24 hours).

CLEANING

Clean all tools and equipments immediately with solvent.

LIMITATIONS

- Experience trained applicators was required to involve this type of material.

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- Do not work near flammable area.
- Avoid contact this material if not necessary. Use glove as protection.

PACKAGING

22kg set.

part A: 20kg ; part B (accelerator): 2kg.

STORAGE

Storage in shade and dry condition free from frost, water, moisture and high temperature. **Rockmax PU100** must be store in air tight container. Must be Protect from atmospheric moisture. Must be store in area where temperature around 10°C – 30°C degree.

SHELF LIFE

12 months if kept follow instructions.

PRECAUTIONS

Avoid contact with skin and eye. Goggle and glove must be use while application. Clean with plenty of water and soap when contact with and see doctor as quick as possible. MSDS is available upon request.

CONTACT DETAIL

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IMPORTANT NOTE!!

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