

ROCKMAX[®] PU600



TWO COMPONENTS HIGH STRENGTH POLYURETHANE RESIN SOIL STABILIZATION & REINFORCEMENT WEAK GROUND

INTRODUCTION

Rockmax PU600 is a solvent free, two components polyurethane injection resin. Cured material results high compressive strength, bonding and tensile strength. Its very tough and solid. It is recommended to use specially for soil stabilization, reinforcing behind concrete structure, protect water infiltration to concrete structure, sealing cracks, filling cavities and gravel nests.

AREA OF USES

Rockmax PU600 is ideal use to permanent seal, water barriers and curtain injections. Range of application include:

- Soil stabilization.
- Improve weak underground substrate.
- Increase strength of soil underground.
- Lifting ground concrete slab.
- Water barrier for concrete structures attached to the ground or soil.
- Crack sealing on concrete structures.
- Sealing on construction joint leakage.

ADVANTAGES

- Permanent seal which provide longer life time than conventional concrete.
- Very high strength.
- Low viscosity that can penetrate into very small voids.
- Good bonding to concrete and brick/block.
- High chemical resistance to almost underground chemicals.
- Hard and tough material.
- Can do both wet & dry crack.
- It is non-permeable material.
- Adjustable reaction.
- Total 100% solid & non-shrinkage.
- Non-toxic once cured hard material. Can use with potable water (cured material).
- Non-corrosive with steel or concrete.



TECHNICAL PROPERTIES

Color

Part A:	yellow
Part B:	brown

Specific gravity

Part A:	1.00	g/cm ³
Part B:	1.25	g/cm ³

Viscosity (at+25°C):

Part A:	300	mPas
Part B:	230	mPas

Mix Properties

Mix ratio (A:B) by volume:	1 : 1 or 1: 2.5
Mix viscosity (at+25°C):	100-200 mPas
Mix density (at+25°C):	1.12 g/cm ³
Pot life (at+25°C):	20 to 30 minute
Reaction time(at+25°C):	60-300 second
Application temperature:	+5°C to +40°C

Cured Properties (approximate at 7 days)

Compressive strength:	450-650kg/cm ²
Tensile strength	55 - 75 kg/cm ²
Shore A Hardness:	65 - 75
Elongation:	3 - 5%
Water absorption:	0%

Machine Required

It can be used for 1-component injection pump or 2-coponenet injection pump

PREPARATION WORK

The soil structural or concrete structure analysis must be carried out prior to process the injection. The extent of the examination and application method depends on the conditions on site. The nature and state of the soil structure must be determined.

In case of high water pressure, it must be stop water by inject **Rockmax PU100** or **Rockmax PU200** prior to start inject **Rockmax PU600**. Remove the loose materials from the surface of the cracks. Drill the injection holes and Install the metal packer along the cracks line. Tight it by wrench and ready to injection.

MIXING (1-coponent injection)

Mix part A and part B by low speed mixer (400-500rpm) for 2 minutes until homogeneous. Place the material into the bucket and ready to inject.

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APPLICATION (1-component injection)

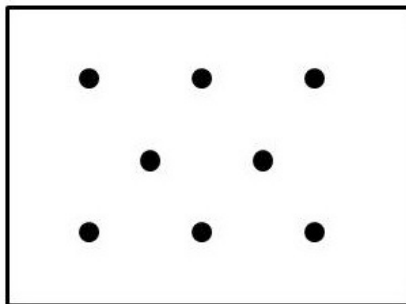
The works must be carried out by experienced and trained contractors. Use single component pump for inject the resin through the cracks. Pour the mixed resin in to the bucket ready to injection. Inject from bottom to top. Re-inject again to ensure the area is fulfilling by material.

APPLICATION (2-component injection)

Place the material each part on each component of injection machine. Adjust the rate of each bucket as per design reaction time. Ensure the volume flow is sufficient so that part A and part B are mixed homogenously in the mixing device.

CURTAIN INJECTION

Curtain injection for below grade structures it is recommended to drill through the structure in pattern that is determined by the physical of the soil. Standard pattern hold are approximate 40 to 50cm spacing.



FINAL WORK

The packer can be removed immediately after the gel formation. Mechanical packers cleaned by means of rinsing pump can generally be used again. After dismantling the packers, remove all gel from the drill holes and fill with concrete repair mortar (**Rockmax TOP**) or quick setting cement mortar for brick work (**Rockmax Waterplug**).

CLEANING

Clean all tools and equipments immediately with thinner such as acetone, toluene. Please be careful on the work that stay for long period of time and not inject the material out of the pump. It might get material cured inside the hose or pump component.

LIMITATIONS

- Experience trained applicators was required to involve this type of material.
- Do not work near flammable area.
- Do not stand behind the packer during injection.

PACKAGING

Part A: 19 kg.

Part B: 21 kg.

STORAGE

Storage in shade and dry condition free from frost, water, moisture and high temperature. **Rockmax PU600** must be store in air tight container. Must be protected from atmospheric moisture. Must be store in area where temperature around +10°C to +30°C degree. All open container should be

SHELF LIFE

12 months if kept follow instructions and un-open package.

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.

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IMPORTANT NOTE!!

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