

ROCKMAX PU100

POLYURETHANE INJECTION TO STOP WATER LEAKAGE

GENERAL INSTALLATION

INTRODUCTION

Rockmax PU100 is a one part hydrophobic polyurethane injection. It is designed to stop water leakage by pressure injection thru crack, honeycomb, void and damaged concrete. It will react immediately when contact with water and create expansion to stop water leakage. In an unconfined environment the expansion rate of the material is twenty (20) times compare to beginning volume.

TOOLS & EQUIPMENTS (GENERAL)

- 1) Injection machine (Pic 1)
- 2) Metal or copper packer (Pic 2)
- 3) Electrical drill
- 4) Hammer and wrench



Pic 1



Pic 2

PREPARATION



Clean the surface of the leak area. These will help technician to identify the exact location and width of the crack prior injection. Sometime the concrete surface hidden under the deposit of dirt and dust for long time. You must remove and clean the surface to see the crack line.

Make a full check of crack conditions such as width, length & determine the position to be injected according to the specific situation.



Install the entry ports (Injection packers). The size and depth of packer depend on the width of walls or floors.

Drill the holes along the crack leak line or around the leak area at a distance of approximately 20- 30cm depend on depth of concrete and crack width. The angle of drilling is 45 degree to the surface and the holes will be approximate half the thickness of concrete. Injection holes should be staggered from one side of the crack to the other (if possible). The diameter of the packer, we recommended using 1/2 and 5/8 inch diameter.

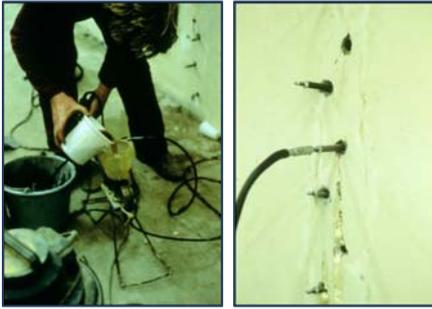


Place the injection packer into the hole. Tighten by using a ratchet and socket or an open-end wrench by turning clockwise as tightly as possible.

APPLICATION & INSTALLATION



APPLICATION



Pour the material include **Rockmax PU100** part A and **Rockmax PU100** part B into the budget container. Hand mix with the steel paddle approximate 1-2 minute.

Place the connector into the packer then start operation of injection machine until material completely fill thorough the crack.

For vertical cracks or inclined cracks begin by pumping foam into the lowest entry port. Keep injecting until the material appears at the adjacent packer. Disconnect and start injection at the adjacent packer.

For horizontal cracks the injection should proceed from one end of the crack to the other in the same manner. The crack is full if the pressure can be maintained.

After injecting few packers, return to the first packer and inject all the ports for the second time. Some of the ports will take some foam which will fill up the crack.

After hardening of **Rockmax PU100** (24 hours), remove all the packers. Fill the hole by epoxy mortar.



CLEANING

Immediately clean the injection machine by pour cleaner (thinner) and run the machine for 2 minute. Make sure no PU material left inside machine, host or valve. Cleaning the surface of the leak repair include remove all the remaining PU foam on the surface and applied cementitious repair mortar on top for close the area of leak.