

PU-GEL 325

ONE COMPONENT POLYURETHANE GEL



DESCRIPTION

PU-GEL 325 is a single component pre-polymerized polyurethane water reactive gel. This injectable hydrophilic polyurethane water-stop resin reacts with water to form high solid gel. When **PU-GEL 325** comes in contact with water, the setting polyurethane material would create a pressurised gel material that works immediately to seal the leakage passage. This polyurethane gel would form a permanent flexible material to seal off and water-tight the leaking area.

Substrate temperature, humidity and amount of water in the leak would effect and determine the gelling time. With its' high density gel and low viscosity characteristic properties, this excellent quality Polyurethane Grout are used in all over the world for water seal off purposes.

PIC : Underground Tunnel



FEATURES & BENEFITS

- + Fast reaction with water.
- + Flexible & permanent after cured.
- + No shrinkage.
- + Non- toxic when cured.
- + Good bond strength.
- + Suitable for below grade structure.
- + Easy Application.
- + No plasticiser as diluents which would likely decrease the bonding of PU to concrete surface, in which may cause the grouted area to LEAK AGAIN!

APPLICATION

PU-GEL 325 area of usage to seal water leakage normally in building concrete structure such as :

- Blanket grouting, behind structure.
- Below grade structure.
- Leakage in concrete structure with movement.
- Underground manhole structure.
- Tunnel.
- Dam & Basement.
- Water Retaining Structure.

TECHNICAL CHARACTERISTIC

Compounding ratio-one part product :-

Specific Gravity	1.0 – 1.2 @ (25°C)
Elongation	
High Water Ratio	Flexible Gel
Low Water Ratio	Flexible Foam
Gel Time	approx. 20 sec with water ratio of 5 -15 times
Foaming Time	No Foaming
Viscosity	200 – 250 @((25°C)
Expansion Rate	5-10%
Water Absorption	Up to 15 times.

PRODUCT PACKING

Packing : 10 KG/PAIL
Shelf life (un-open) : Six (6) months

METHOD OF STATEMENT

Identify the leakage line or area. At about 40 – 50mm away from the leaking spot, use a hammer drill to drill to the depth of at least 100mm of concrete at 45° or lesser to intersect the crack line. Make sure it's drill bit size is the same diameter as the injection packer. Remove all dust and residue from drilled hole by using hand operate air blower or piped water. Install injection packer and start to inject **PU-GEL 325** using a hand pump or **Kühlzer XR series** electric grout machine. Inject the PU Grout and maintain the pressure at 5000psi for a few minutes before proceed to next grouting point. Re-inject the point by removing the used packer and reinstall a new one for a second time. These shall ensure the void or under pressurised area is fully pack with **PU-GEL 325** polyurethane system. Remove packer after material set and plug hole with POLY-Plug and make good.



MAINTENANCE OF MACHINERY & TOOLS

For proper maintenance of machinery and tools, use **D-SOLV 100** to clean and flush pump system. Do not use any thinner or alcohol substance for cleaning.

After cleaning and flushing, fill the pump and hose system with **D-LUB 50** to prevent pump and parts to malfunction. It is advisable not to use either organic oil e.g. automobile oil or cooking oil.

HEALTH & SAFETY

Use protective clothing, gloves and goggle at all time when handling materials and high pressure machine.

Wash with plenty of water and soap if liquid is smeared on skin. Seek immediate medical advice in case of material comes in contact of eyes or swallow. Make sure proper ventilation at work site is adequate.

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POLYCELL TECHNICAL DEPARTMENT

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Technical Data Sheet

Product: PU-GEL 325 * Issue Date: Nov 2015 * Revision Date: Mar 2018 Issue No: 3 * Division: PUGroutings * Total Pages: 2

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