

PRODUCT DATA SHEET



Water-Based Polyurethane Injection Grout

INTRODUCTION

Water-Based Polyurethane Injection Grout is a single-component grouting material. It disperses, emulsifies, and foams rapidly upon contact with water, forming an impermeable elastic gel-like solid. It has excellent water-stop properties, with good elongation, elasticity, and impermeability after reaction.

It is also resistant to low temperatures (-20°C) and can maintain its original form permanently in water. After mixing with water, it has low viscosity, good flowability, and is non-toxic, harmless, and non-polluting to humans. With good expansion properties and high water retention.

APPLICATION

This product is suitable for repairing wet cracks and leakage in concrete components such as in basements, subway tunnels, dams, and brick structures. It is also applicable for indoor moisture-proofing projects in areas like bathrooms and kitchens, as well as for waterproofing joints in utility tunnels and repairing fine cracks in roofs of civil buildings. It is effective for leak-stopping in dynamic water environments, such as seepage caused by fluctuations in the groundwater table. The product is particularly effective in areas with visible seepage or active leakage, as it requires contact with free water to initiate its reaction.

ADVANTAGES

- Excellent water resistance: Reacts with water to form an impermeable, elastic gel-like solid.
- Good physical properties: Offers extensibility, elasticity, impermeability, and low-temperature resistance.
- Safe and eco-friendly: Non-toxic, harmless, and non-polluting with good inject ability.
- Secondary penetration: CO₂ release helps the slurry fill voids, ensuring complete sealing.
- Adjustable properties: High expansion, water absorption, and adjustable viscosity and curing speed.

PACKAGING

Specification:	7kg / pail, 10kg/pail, 20kg/pail
Appearance:	Single component, yellow liquid.
Water Uptake Ratio:	Max 20 times
Shelf Life:	1 Year

CONSTRUCTION STEPS

1. Inspect and Clean

Check the leaking areas and clean debris around the cracks before grouting.

2. Drill Injection Holes

Drill holes at the cracks, using angled holes for deeper cracks. Hole spacing is typically 0.2-0.5 meters, with a depth around half the concrete thickness.

3. Install Injection Ports

Insert the injection ports and seal them with fast-setting cement.

4. Grouting

Determine the grouting pressure and volume based on the crack's condition. Move to neighboring holes if needed, and continue grouting until the standard completion is met.

5. Seal after Curing

After 72 hours, inspect the leakage points for any signs of water seepage. If no seepage is observed, break off the grouting nozzles and seal the substrate with rapid-hardening cement.

6. Cleaning the Grouting Machine

Clean the grouting equipment using thinner or solvent. Afterwards, add engine oil for maintenance.

Note:

- 1.The ambient temperature during application should be above 0°C, as low temperatures may affect the reaction and curing speed.
- 2.Ensure adequate ventilation and keep away from any ignition sources during application. Open flames must not be used in the surrounding work area before the material has cured.
- 3.Immediately after use, machine must be thoroughly cleaned with a cleaning agent until completely clean.

HANDLING & HEALTH

- 1.Please wear rubber or plastic gloves to avoid contact

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with skin.

2.Product is for professional use only.

3.If the product comes into contact with skin during application, it is recommended to remove it with dry towel or cloth, followed by washing the skin with clean water.

1.This product is eco-friendly & non flammable

2.This product must be stored dry, protected from sun and rain.

3.This product can be stored in low-temperature environments during winter.

STORAGE & SAFETY

TECHNICAL DATA

No.	Test Item	Standard Requirement	Test Result	Individual Results
1	Appearance	Uniform liquid, no impurities, no separation.	Uniform liquid, no impurities, no separation.	Pass
2	Density, g/cm ³	≥ 1.00	1.060	Pass
3	Viscosity, mPa·s	≤ 1.0×10 ³	686	Pass
4	Gel curing time, s	≤150	16	Pass
5	Water absorption expansion rate, %	≥ 20	72	Pass
6	Water retention (10 times water), s	≤200	24	Pass
7	Non-volatile content, %	≥ 75	79	Pass

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