LONGYAN HUISINS CHEMICAL INTERNATIONAL LIMITED

TDS (Technical Data Sheet)

P/N： Polyurea Elastic Leak-Sealing Grouting Fluid

Customer： N/A
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Customer Desc： N/A

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Version History

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Product Name： Polyurea Elastic Leak-Sealing Grouting Fluid

Model No: DS300

DS-300 Single-Component Polyurea Elastic Leak-Sealing Grouting Fluid is a hydrophilic polyurea elastic leak-sealing agent pre-polymerized from amino-terminated polyether and isocyanate as the main resins. Under pressure from a specialized grouting pump, this grouting fluid can penetrate fine cracks in concrete structures and react with water or moisture within the cracks. The product reacts readily with water, expanding rapidly in volume by more than ten times upon reaction to form a high molecular elastic material with high toughness and strength. Due to its high permeability, strong adhesion, high expansion rate, and flexibility, it can quickly seal fine cracks (less than 0.2mm) and capillary pores in concrete structures, providing permanent waterproofing.

Product features and advantages

* Excellent durability, resistant to aging, water immersion, and low temperatures.
* Can cure underwater with good fluidity.
* Good strength and excellent elasticity, allowing it to adapt well to deformation.
* Dense internal structure of the cured gel ensures effective waterproofing.
* Can react with weakly acidic or alkaline water without affecting the sealing performance.
* Curing is not sensitive to temperature; it cures in both high and low temperatures.
* Single-component material, simple and convenient application.
* Solvent-free product, odorless, non-toxic, and no VOC emissions.
* High reactivity and high expansion rate enable rapid leak sealing.

Application scope

Fine cracks in concrete structures around building window sills, roof slabs, basements, water tanks, etc.

Products information

Item	Result
Solid Content (%)	98
Surface Dry Time (min)	60
Hard Dry Time (h)	≤5
Tensile Strength (Mpa)	≥1.5
Elongation at Break (%)	120
Hardness (Shore A)	≥30
Low-Temperature Flexibility (℃)	-40
Impermeability (0.3Mpa, 120 min)	Impermeable
Specific Gravity (g/cm³)	1.05
Expansion Rate (%)	800-1000
Bond Strength (MPa)	1.8

Application and Application Guide

Grouting Equipment: Use the same equipment as traditional foam polyurethane grouting.

Substrate Preparation: Clean the concrete cracks and surrounding areas of debris and dust. Ensure the concrete around the cracks is solid and clean.

Embed Grouting Needles: Pre-embed grouting needles at a 45° angle on both sides of the crack. The drilling depth must penetrate through the crack. Space needles 10-15 cm apart. Add an additional grouting needle at a 45° angle at crack intersections.

Flushing Cracks: If possible, use a grouting machine to flush the cracks with water. Simultaneously, observe if water seeps out on the crack surface. If no water seeps out in certain areas, additional grouting needles should be installed.

Polyurea Grouting: Pour the polyurea grouting fluid into the machine's material cup. Start the grouting machine and begin the waterproofing and reinforcement grouting process. When grout emerges from the next needle, continue applying pressure for 2-3 seconds.

Note: Ensure the crack is fully filled with grout. For areas not adequately filled, add more grouting needles and inject until no water seepage is observed.

Product Packaging and Shelf Life

Packaging Specifications: 5 kg/pail; 10 kg/pail

Storage Environment Temperature: 5°C --- 35°C

Product shelf life is 6 months from the production date, provided the package remains unopened and the seal is intact.

Store in a cool, ventilated environment, avoiding direct sunlight.

Product health and safety information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety related data.

Integrity declaration

Huisins guarantees all technical data stated in this sheet are based on laboratory tests. Actual testing methods may vary due to different circumstances.Therefore please test and verify its applicability. Huisins does not take any other responsibilities except the product quality and reserve the right of any modifications on the listed data without prior notice.

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