



Aquatech LTD.

PRODUCT DATA SHEET

Polyurea SH

Single-Component Hand-Applied Polyurea Coating

Product Description

Polyurea SH is a single-component, hand-applied polyurea coating with high mechanical strength, excellent elasticity, and superior weather resistance. It is specially formulated to match the modulus of concrete, ensuring long-lasting performance even under extreme conditions. After curing, the film retains an elongation of at least 100% at -45°C, delivering reliable flexibility in low temperatures.

Where To Use

- Exposed elastic waterproof coating for housing construction.
- Waterproofing of concrete detail nodes.
- Elastic anti-seepage coating for joints, hydraulic structures, and cracks.
- Traffic bridges, flyovers, air passages requiring wear-resistant waterproofing.
- Metal roofing structures requiring elastic protection.
- Pools, water features, and liquid cement mortar applications.
- Additional waterproofing, anti-corrosion, and protective floor coatings

Recommended Usage

0.5 – 2.0 kg/m² (film thickness 0.2 – 1.0 mm per layer).

Product Features

- Substrate must be thoroughly cleaned; remove laitance, dust, and oil.
- Apply appropriate polyurea primer depending on substrate (concrete, metal, aluminum alloy, glass, ceramics, etc.).
- Application window after primer: 3–15h (25°C, 55% RH); adjust to 2–6h in summer, 6–18h in winter.
- Once opened, use material within 1 hour. Do not dilute if viscosity increases; scrap thickened material.
- Curing: 3–4h tack-free, 6–24h fully dry (depending on environment and thickness).
- Apply in multiple layers if thickness > 1.0 mm is required.

Construction Methods

- Application by scraper, brush, or short-hair roller.
- Can also be applied by special spraying machine.

Supply & Packaging

20 kg/pail

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Technical Data

(According to JC/T 2435-2018 Type I)

Item	Requirement
Component	One-component
Solid content (%)	≥ 80
Surface drying time (h)	≤ 3
Fully drying time (h)	≤ 6
Tensile strength (MPa)	≥ 15
Elongation at break (%)	≥ 300
Low-temperature elongation (-45°C, %)	≥ 100
Tear strength (N/mm)	≥ 40
Low temperature bending (-45°C)	No cracking
Bonding strength (MPa)	≥ 2.5 (standard) / ≥ 2.0 (cyclic flooding)
180°C Bond stripping (N/mm)	≥ 2.0 (standard) / ≥ 1.5 (cyclic flooding)
Heat resistance (80°C, 168h)	Strength retention 80–150% elongation ≥ 250%, no cracking
Acid resistance (2% H ₂ SO ₄ , 168h)	Strength retention 70–150% elongation ≥ 250%, no cracking
Alkali resistance (0.1% NaOH + Ca(OH) ₂ , 168h)	
Salt resistance (3% NaCl, 168h)	
Hardness (Shore A)	≥ 60
Water absorption (%)	≤ 5
Wear resistance (mg, 750g/500r, CS-10)	≤ 40
Impact resistance (9.8N·m)	No cracks, peeling, or wrinkles

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Storage & Transportation

- Shelf life: 6 months in sealed packaging under $\leq 27^{\circ}\text{C}$.
- Store in a cool, dry, ventilated area away from sunlight, heat, and fire sources.
- Transport carefully to avoid collision.
- Construction sites must have fire protection equipment.
- Keep out of reach of children. Solidified waste may be treated as standard rubber waste



Disclaimer

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