

# Product Technical Manual

Revision Dat: 2025-03-03

TDS Number: WHS\_001

Product Name: The Two-component Spray Polyurea Waterproof Coating

Version: V 3.0

## Product Introduction

The two-component spray polyurea waterproof coating is widely used in fields such as water conservancy, transportation, construction, chemical industry, power, metallurgy, and marine engineering. It effectively addresses waterproofing, seepage prevention, and corrosion resistance issues for substrates like concrete and steel structures, extending their service life.

## Performance Features

1. Rapid Gelation and Curing: Can be sprayed and formed on any curved, sloping, or vertical surfaces.
2. High Solid Content, Zero VOC Emissions: Environmentally friendly.
3. Single Application Achieves Design Thickness: Eliminates multiple application drawbacks.
4. Excellent Physical Properties and Chemical Resistance: Superior durability.
5. Seamless, Dense Coating: Provides "skin-like" protection.

## Product Applications

Mainly used in rail transit, municipal engineering, hydraulic projects, chemical storage tanks, wear-resistant protection, structural corrosion prevention, and residential waterproofing.

## Key Performance Indices

Item	Index	Unit	Testing Method
Appearance	A Component: Light yellow viscous liquid	-	GB/T 23446-2009
	B Component: Adjustable color viscous liquid		

Solid Content	100	%	GB/T 23446-2009
Gel Time	13	s	GB/T 23446-2009
Surface Drying Time	28	s	GB/T 23446-2009
Density	1.05	g/cm <sup>3</sup>	GB/T 23446-2009
Tensile Strength	17	MPa	GB/T 23446-2009
Elongation at Break	480	%	GB/T 23446-2009
Tear Strength	70	N/mm	GB/T 23446-2009
Impact Resistance	1.5	kg·m	GB/T 23446-2009
Water Resistance	0.4MPa, 2h Waterproof	-	GB/T 23446-2009
Low-Temperature Flexibility	-40	°C	GB/T 23446-2009

## Substrate Preparation

- Concrete: Remove loose surface layers to expose solid substrate. Ensure no moisture or standing water. Use specialized filler for pore sealing and apply primer.
- Steel Substrate: Sandblast to Sa2.5 finish, dust removal, then apply primer.
- Other Substrates: Consult Wanhua Energy Saving Technology (Yantai) Co., Ltd. technical department.

## Construction Conditions

- Temperature: Ambient 5–35°C; substrate temperature  $\geq 3^{\circ}\text{C}$  above dew point.
- Humidity:  $\leq 80\%$  RH; concrete moisture content  $< 6\%$ .
- Ventilation: Avoid strong winds to prevent dust contamination.

## Application Method

Special high-pressure airless spray equipment.

## Packing Details

- A Component: 220 kg/barrel (net weight)
- B Component: 200 kg/barrel (net weight)
- Mix Ratio: A:B = 1:1 (by volume)

## Storage (Usage) Precautions

- Store in cool, ventilated, dry warehouses. Protect from rain, sunlight, fire, and heat sources. Storage temperature: 5–35 °C.

- Shelf life: 12 months from production date (unopened). Extendable if tested

compliant post-expiry.

- Non-flammable during transport. Prohibit rain/sun exposure; comply with transportation regulations.
- Smoking and open flames prohibited in storage, transport, and construction areas.

### Expiration Date

12 months from production under proper storage conditions.

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**For more information, please refer to the Safety Data Sheet (SDS) of our products or contact our Customer Service Center.**

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The indicators and data provided in this document are based on our current level of technical knowledge and practical experience, and are for reference only. Specific guaranteed indicators are subject to the quality assurance certificate or supply contract. The user is responsible for testing the products purchased from our company to verify their suitability for their intended processes and applications, and to achieve the desired objectives. Further application and processing of our products are beyond our control. Therefore, our liability for the products provided is limited to the portion delivered by us and used by you. We do not assume responsibility for indirect losses incurred during the production process using our products as raw materials. Our technical support and customer service center are available to provide consultation and technical services related to our products. We welcome your inquiries and communication via mail or phone.

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