

LONGYAN HUISINS CHEMICAL INTERNATIONAL LIMITED

TDS (Technical Data Sheet)

**P/N: one-component modified polyurea waterproof
anticorrosion protective coating**

Customer: N/A
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Customer Desc: N/A

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Version History

Rev.	Status	Revision Description	Author/Approved	Date
A	Approved	Initial Release	Sha LIU	2016-01-18

Product Name : one-component modified polyurea waterproof anticorrosion protective coating

Model No: ST800E

1. Description

ST800E is a single-component aromatic modified polyurea waterproof and anti-corrosion coating that offers strong adhesion to both concrete and steel substrates while requiring no specialized spraying equipment for easy application. Its unique chemical structure provides the cured film with excellent chemical resistance and outstanding waterproof properties, making it an ideal protective solution for a wide range of applications. With high elasticity and strong adhesion, it is particularly suitable for waterproofing roofs, balconies, bathrooms, exterior walls, and basements, as well as for repairing old SBS-modified membrane roofs and providing anti-corrosion and waterproof protection for aged color steel tile roofs.

2. Features

- High solid content, low VOC emissions
- The application method is simple and does not require professional polyurea spraying equipment. It can be applied by brush, roller, or high-pressure airless machine.
- The coating has good flexibility, strong leakage resistance, and excellent waterproof performance.
- Excellent resistance to chemical medium corrosion, capable of withstanding certain concentrations of acids, alkalis, salts, oils, organic solvents, etc
- Excellent adhesion, which can quickly and firmly bond to the surface of substrates such as concrete, steel, wood, glass fiber, etc
- Wide temperature range for use ranging from -50 °C to 120 °C
- It is one component material, easy to apply, without the need for mixing, reducing labor costs

Application Scope

Construction, water conservancy, transportation, chemical industry, electric power, and more. Typical applications include waterproofing of building roofs, bathrooms, exterior walls, basements, water conservancy dams, and hydropower station structures. It is especially suitable for renovating aged SBS-modified membrane roofs and providing anti-corrosion and waterproof protection for older color steel tile roofs.

3. Products information

Item	Results
Appearance	Color is adjustable
Specific gravity	1.25±0.05
Viscosity (cps)@20℃	7500±500
Solid content (%)	≥80
Tack-Free Time (hrs)	2-4
Pot life (hrs)	1h
theoretical coverage	0.75kg/m ² (thickness 500um)

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4. Physical properties

Item	Test standard	Result
Hardness (Shore A)	ASTM D-2240	78
Elongation at Break (%)	ASTM D-412	420
Tensile strength (Mpa)	ASTM D-412	16
Tear strength (KN/m)	ASTM D-624	62
Abrasion resistance (750G/500r) /mg	HG/T 3831-2006	10
Adhesive strength (Mpa) concrete base	HG/T 3831-2006	3.3
Adhesive strength (Mpa) steel base	HG/T 3831-2006	8
Impact Resistance (kg.m)	GB/T23446-2009	1.0
Density (g/cm ³)	GB/T 6750-2007	1.25

5. Chemical resistance

Acid resistance 10% H ₂ SO ₄ or 10%HCl, 30d	No rust, no bubbles, no peel off
Alkali resistance 30% NaOH, 30d	No rust, no bubbles, no peel off
Salt resistance 30g/L, 30d	No rust, no bubbles, no peel off
Salt spray resistance, 2000h	No rust, no bubbles, no peel off
Oil resistance 0# diesel, crude oil, 30d	No rust, no bubbles, no peel off

(For reference: pay attention to the influence of ventilation, splash and spillage. Independent immersion testing is recommended if requiring detail data.)

6. Application environment

Environment temperature	-5℃-35℃
Relative humidity	35-85%
Dew point	When applying on the surface of metal materials, the temperature must be at least 3℃ above the dew point.

7. Application tips

Recommended dft: 300-1000um(as design requirement)

Re-coating interval: 4-24 hours. If the re-coating time exceeds 24 hours or there is dust on the surface, It is recommended to use sandpaper to polish and clean before application.

Recommended coating methods: brush, roller, high-pressure airless spraying.

Substrate treatment

Metal surface: It is recommended to sandblast for rust removal, reaching Sa2.5 level according to ISO8501-1 or GB8923 standards.

Concrete surface: achieve a sturdy, dense, flat, clean, and dry state. There should be no phenomena such as sanding, peeling, cracks, honeycomb pits, etc. Usually, it needs to be repaired with putty.

Wood surface: clean, dry, free from burrs, debris, and loose debris.

Consult STWD technical personnel for the surface treatment when apply on other substrate.

Application note

This product can be used at a low temperature of -5 °C. When using in low-temperature environments, it is recommended to place the coating bucket in an air-conditioned room for at least 24 hours.

HUISINS recommends mixing the coating evenly before use, pour out the exact quantity that would use up, and quickly closing the lid of the barrel. The material after use shall not be returned to the original barrel.

The coating viscosity of this product has been adjusted as needed before leaving the factory.

Application personnel cannot add diluents without permission. If the viscosity needs to be adjusted due to changes of temperature, please consult the coating manufacturer and obtain guidance before adding special diluents.

8.Curing time

Substrate temperature	Surface dry time	Foot traffic time	Solid cure
+10°C	5h	24h	7d
+20°C	3h	16h	6d
+30°C	2h	8h	5d

9.Shelf Life

storage temperature: 5°C~35°C

shelf life: 10 months (sealed)

store in cool and ventilated place, avoid direct sunshine, keep away from heat

package: 5kg/bucket, 25kg/bucket

10.Health and Safety

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.

11. Disclaimer

All technical data provided in this datasheet are derived from controlled laboratory testing. Actual performance may vary depending on application-specific conditions. Users are advised to conduct their own tests to verify suitability for intended use. HUISINS guarantees product quality as specified but shall not be held liable for application-specific performance. We reserve the right to modify product information without prior notice.