

LONGYAN HUISINS CHEMICAL INTERNATIONAL LIMITED

TDS (Technical Data Sheet)

**P/N: Single component aliphatic polyurea waterproof
and anti-corrosion 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 : Single component aliphatic polyurea waterproof and anti-corrosion protective coating

Model No: ST800F

1. Description

ST800F is a single component aliphatic polyurea waterproof anti-corrosion coating material, which has excellent adhesion to various substrates. Due to the unique chemical structure of aliphatic prepolymers, this product not only has excellent high elasticity, high strength, wear resistance, and impact resistance, but also has excellent corrosion and weather resistance. It does not pulverize or change color when used outdoors for a long time, and has good decorative effects.

2. Features

- High solid content, low VOC emissions
- Simple application: brush, roller, or spray
- Outstanding wear and impact resistance
- Superior waterproofing performance
- Excellent resistance to acids, alkalis, salts, oils, and solvents
- UV resistant; will not powder or discolor outdoors
- Strong adhesion to steel, concrete, wood, and fiberglass
- Wide application temperature: -50℃ to 80℃
- Single-component; no mixing required, easy to use

Application Scope

Outdoor waterproof and anti-corrosion protection for industries such as petroleum, chemical, transportation, construction, power, and containers. Such as bridge maintenance, building roof waterproofing, water conservancy dams, hydropower station building waterproofing, etc.

3. Products information

Item	Results
Appearance	Color adjustable
Specific gravity	1.2
Viscosity (cps)@20℃	500
Solid content (%)	75 (vary with different colors)
Dry time (hour)	3-5
Pot life (h)	1
Theoretical Coverage	0.16kg/m2 (thickness 100um)

4. Physical properties

Item	Test standard	Result
Hardness (Shore A)	ASTM D-2240	82
Elongation at Break (%)	ASTM D-412	350
Tensile strength (Mpa)	ASTM D-412	22
Tear strength (kN/m)	ASTM D-624	63
Wear resistance (750g/500r)/mg	HG/T 3831-2006	8
Adhesive strength (Mpa), metal base	HG/T 3831-2006	10
Adhesive strength (Mpa), concrete base	HG/T 3831-2006	3.5
Impact resistance (kg.m)	GB/T23446-2009	1.0
Density (g/cm ³)	GB/T 6750-2007	1.2
Anti-aging, accelerated aging 1000h	GB/T1865-2009	No bubbles, no cracking, no rust or peeling; Powder level 0, color change level 2, loss of light level 2

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 requires other specific 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: 100-200um (or according to design requirements)

Re-coating interval: 6-30h. If the coating time exceeds 30 hours or there is dust accumulation on the surface, it is recommended to use sandpaper to polish and clean before application.

Recommended coating methods: airless spraying, air spraying, brush, roller

Substrate treatment

Metal surface: It is recommended to sandblast to achieve Sa2.5 level according to ISO8501-1 or GB8923 standards.

Concrete surface: achieve a strong, dense, flat, clean, and dry state. There should be no phenomena such as sanding, shelling, cracks and honeycomb. Usually, putty is needed for repair.

Wood surface: clean, dry, without burrs, fragments, and loose debris.

The application treatment of other substrates please consulted with HUISINS technical personnel.

Application note

This product can be used at low temperatures below -10 °C. When using in low-temperature environments, it is recommended to place the paint bucket in an air-conditioned room for at least 24 hours. HUISINS recommends mixing the paint evenly before use, pour out the accurate quantity of material that will use up in one time and seal well immediately. Don't pour the rest liquid to the original bucket. The viscosity of the coating has been adjusted as needed when this product leaves the factory. thinner shall not be random added by the applicators. Call the manufacturer for the instructions of special thinner if the viscosity changed as the application environment and humidity.

8.Curing time

Substrate temperature	Surface dry time	Foot traffic	Solid dry
+10°C	6h	30h	7d
+20°C	4h	24h	6d
+30°C	3h	20h	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.