

LONGYAN HUISINS CHEMICAL INTERNATIONAL LIMITED

TDS (Technical Data Sheet)

P/N: Hand-applied thick film aliphatic polyurea waterproof coating

Customer:	N/A
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Customer Desc:	N/A

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Version History

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A	Approved	Initial Release	Sha LIU	2016-01-18

Product Name : Hand-applied thick film aliphatic polyurea waterproof coating

Model No: ST800G

1.Description

ST800G is a single component aliphatic polyurea anticorrosion waterproof protective coating. Due to the use of high-strength resin, aliphatic isocyanate, and some special additives for pre-polymerization, the resulting coating has high viscosity and can be applied with a scraper. This product not only has excellent high elasticity, high strength, wear resistance and impact resistance, but also has excellent anti-corrosion and weather resistance property. It does not pulverize or discolor after long-term outdoor use, and has good decoration effects.

2.Features

- * High solid content, low VOC emission
- * The application method is simple and can be applied by brush, roller, air spray or high-pressure airless spray.
- * Good physical properties such as wear resistance and impact resistance.
- * Excellent waterproof performance.
- * Excellent resistance to chemical medium corrosion, capable of withstanding certain concentrations of acids, alkalis, salts, oils, organic solvents, etc
- * Excellent anti-aging performance, non-powdering and non-discoloration for long term outdoor use
- * Excellent adhesion, can quickly and firmly bond to the substrate surfaces such as steel, concrete, wood, glass fiber, etc
- * The application temperature range is wide, ranging from -50°C to 120°C condition.
- * It is single component material, easy to apply, without the need for mixing, reducing labor costs

Application Scope

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

3. Products information

Item	Results
Appearance	Color adjustable
Specific gravity	1.1-1.2
Viscosity (cps)@20℃	10000-30000
Solid content (%)	80 (Slightly different due to different colors)
Tack-Free Time (hrs)	1-3
Pot life (hrs)	1
theoretical coverage	0.16kg/m ² (thickness 100um)

4. Physical properties

Item	Test standard	Result
Hardness (Shore A)	ASTM D-2240	92
Elongation at Break (%)	ASTM D-412	300
Tensile strength (Mpa)	ASTM D-412	24
Tear strength (KN/m)	ASTM D-624	65
Abrasion resistance (750G/500r) /mg	HG/T 3831-2006	8
Adhesive strength (Mpa) concrete base	HG/T 3831-2006	3.5
Adhesive strength (Mpa) steel base	HG/T 3831-2006	10
Impact Resistance (kg.m)	GB/T23446-2009	1.0
Density (g/cm ³)	GB/T 6750-2007	1.2

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, 60d	No rust, no bubbles, no peel off
Salt spray resistance, 2000h	No rust, no bubbles, no peel off
Oil resistance 0# diesel, crude, 30d	No rust, no bubbles, no peel off
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 instructions

Environment temperature	-5℃-35℃
Relative humidity	35-85%
Dew point	when apply on metal surface, the temperature must be 3℃ higher than dew point.

7. Application guide

Recommended application method	scraping
Recommended dft	500-2000um (or based on the design requirements)
Recoating interval	4-24h, 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.

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: it must be solid, dense, flat, clean and dry. 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.

For the application and treatment of other substrate, please consult HUISINS technician.

Application precautions

This product can be used at a low temperature of -10 °C. When using in low-temperature condition, it is recommended to put the material bucket in an air-conditioned room for at least 24 hours.

HUISINS recommends pouring out the quantity would use up at one time and quickly closing the bucket lid tightly. Don't pour the rest liquid to the original bucket.

The coating viscosity of this product has been adjusted as needed before leaving the factory. The application personnel should not add diluents at random. If the viscosity needs to be adjusted due to the changes in environment or temperature, please consult the manufacturer.

8.Curing time

Substrate temperature	Surface dry time	Foot traffic	Solid dry
+10°C	6h	24h	7d
+20°C	2-3h	12h	6d
+30°C	1h	8h	5d

9.Shelf Life

From the manufacturer date and on the original package sealed condition: 6 months

storage temperature: +5-35°C

Packing: 4kg/barrel

Store in cool and ventilated place, avoid direct sunshine exposure.

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.