

LONGYAN HUISINS CHEMICAL INTERNATIONAL LIMITED

TDS (Technical Data Sheet)

**P/N: Spray Polyurea Elastomer For
Special Vehicle Explosion Protection High Strength Coating PS600H**

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 : Spray Polyurea Elastomer For Special Vehicle Explosion Protection High Strength Coating
Model No: PS600H

1. Description

PS600H is a kind of material with high crosslinking density and certain elasticity, excellent wear resistance. When the vehicles got collision in the driving process, the vehicle body can easily get damaged and bring risks to the people inside the car. Therefore, it is important to choose a explosion protection material to protect the vehicles. We developed explosion protection high strength coating, which has excellent performance of being tough, abrasion resistance and impact resistance. It has been widely used on American armored vehicles, police cars, special industry escort vehicles and sport utility vehicles.

2. Characteristics

The product has high reactivity, fast cure, can be sprayed forming on any bent, slope and vertical surfaces without sagging. Surface granulation, nice and feel comfortable. The coating film is dense, seamless, bond well with substrate that greatly increase the adhesive strength. It has excellent explosion protection, impact resistance and anti-collision, to protect the car body and decrease the damage of external force. Spray along with polyaspartic anti-aging topcoat to protect the car body from color-changing, good decoration and safe.

3. Performance

Volume solid content	100%
VOC	0
Penetration resistance	2.6Mpa
Adhesive strength (steel base)	11.3Mpa
Elongation	≥439%
Tensile strength	21MPa
Impact strength	≥82kN/m
Water impermeability	0.4MPa,60min
Density	1.01g/cm3
Wear resistance (750g, 500r)	4.3mg
Recommended dry film thickness	2000-3000µm
Theoretical coverage	2.04kg/sqm (calculated by the above solids percentage and dry film thickness of 2000 microns)
Practical coverage	Allow appropriate loss rate
Water resistance (30d)	no rust no bubbles no peel
Acid resistance (10%H2SO4 or 10%HCl, 30d)	no rust no bubbles no peel
Alkali resistance 10%NaOH, 30d	no rust no bubbles no peel
Salt resistance 60g/L, 30d	no rust no bubbles no peel
Salt spray resistance (2000h)	no rust no bubbles no peel
Oil resistance 0# diesel crude oil 30d	no rust no bubbles no peel
Flash point	200°C
Dry time	20-30s (Surface fine granulation)
Overcoating interval	min: 1h, max: 24h
Overcoating method	Special polyurea equipment spray (imported or local support)

Recommended procedures

No.	Name of products	Layers	Dry film thickness (µm)
1	polyurea special primer	1	50
2	PS600H special vehicle explosion protection high strength coating	1	2500
3	Polyaspartic anti-aging coating	1	30
Total		3	2580

4.Applications

Transportation tools body protection of cars, SUV, buses, trucks, armored vehicles

5.Construction method

- 1) Spray equipment: Spray polyurea materials must be constructed using a dedicated (1:1) two-component spray equipment. Such as Graco's H-XP3 and so on.
- 2) Construction environment requirements: In order to achieve the best coating effect, the site requires ventilation, the ambient temperature should not be lower than 10 °C, the substrate temperature is higher than the dew point of 5 °C, and the air humidity is less than 80%.
- 3) Surface treatment of the substrate:
 - a. Leveling the cement surface: leveling the substrate with cement mortar.
 - b. Grinding of the substrate: the substrate requires fine pitting (to be flat), the surface of the substrate is polished, the scar and the floating slurry are removed, and the position of the negative angle of the yin angle is treated with emphasis, and the yin angle is straight and yang. The corner suggests eight-point angle processing.
 - c. Cleaning: The dirt on the surface of the substrate cleaned with oil-free, water-free compressed air will clean up the debris that affects the construction of polyurea.
- 4) Scrape putty: Apply putty to seal the trachoma and micropores on the concrete surface.
- 5) Spray polyurea: Spray with special polyurea spraying equipment and polyurea spray gun. Use cross method to repair leak spray and reduce stress.
- 6) Spraying aliphatic polyurea topcoat: Spraying with special polyurea spraying equipment and polyurea spray gun, spraying evenly without defects and leaking spray.

6.Package

Two-component, A component 210KG / 210L barrel, B component 200KG / 210L barrel.

7. Color

Spray polyurea material can provide other colors according to user requirements

8. Safety

Spraying polyurea materials should be equipped with basic labor protection measures during it was be used.

It is recommended that operators be equipped with protective clothing, goggles, plastic gloves, masks and other protective equipment.

9.Storage/Shelf Life

Ideal storage condition is 5-35 °C in cool and dry place, avoid direct sunlight. / one year