

LONGYAN HUISINS CHEMICAL INTERNATIONAL LIMITED

TDS (Technical Data Sheet)

P/N: Coastal Dam Polyurea Protective Coating
Name: Coastal Dam Polyurea Protective Coating PS700B

Customer: N/A
Customer P/N: N/A
Customer Desc: N/A

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Approved By: Sha LIU

Version History

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

Product Name : Coastal Dam Polyurea Protective Coating

Model No: PS700B

1.Description

PS700B is a 100% solids, two-component, fast curing, high-performance on-site spray molding materials. The product is mainly composed of an isocyanate semi-prepolymer, Poly-amine resin, and a pigment, which has the advantages of high strength, good performance and quick construction. Based on the high reactivity and fast curing property, it can be sprayed forming at any bent, inclined and vertical surface without sagging. With super adhesive strength and impact resistance characteristics, the coating is flexible, impact resistant and seamless that able to completely insulate air and water and oxygen penetration. It integrated anticorrosion, waterproof, wear resistance, aging resistant performances, no pulverization and crack peel up or fall down after long- term outdoor work with alternating ambient conditions of cold, heat, rain and snow. It is the optimum choice where a tough, flexible, impact resistant, abrasion resistant waterproofing system which exhibits extraordinary performance characteristics.

2.Features

- 1>. Without any thinner, environmental protection;
- 2>. Elongation, high flexibility, can adapt to the basic cracks and slight deformation;
- 3>. Good aging resistance
- 4>. Fast curing, can be sprayed on any surface, slope, vertical surface;
- 5>. Convenient construction, spraying a film.

3.Performance

Volume solid content	100%
Hardness (Shore A)	85-90
Density	1.05g/cm ³
Elongation	≥420%
Tensile strength	≥30MPa
Impact strength	≥80N/mm
Water impermeability	0.4MPa,60min
Wear resistance (750g, 500r)	30mg
Impact resistance	1.5kg.m
Electric strength	15kv/mm
Temperature variation	-35-----+120°C
Heating temperature	55-65°C
Recommended thickness	3000μm
Operating temperature range	0-35°C
Gel time(sec)	7-15
Tack free time(sec)	30-50
Water resistance (30d)	no rust no bubbles no peel
Acid resistance (10%H ₂ SO ₄ 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

Material base data (25°C, 60%RH)

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	Main Agent	Curing Agent
Appearance	Colorless transparent liquid	Colorless transparent liquid
Smell	Slightly stimulating odor	Pungent amine odor
Chemical components	Poly-amine	MDI
Viscosity25℃	A: 450MPa	350MPaS
Proportion25℃	1.07	0.98
Solid content	100%	98%
VOC	10	0

Mixed material Data (25℃, 60%RH)

Viscosity of mixed25℃: 400MPaS

Mixing proportion25℃ :1.05

Potlife20℃: 8-15min

Dry time: 10min

Open time:30min

Hard drying time: 20hr

Recoatable time: 10min

Allow maximum ambient humidity:90%RH

Above dew point temperature: 3℃

4. Applications

Anti-corrosion and waterproof protection of coastal and dyke dams and other facilities

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) Brush primer: brush the EP1304 or HP6303K concrete special primer, evenly brushed, no leakage coating, no defects.
- 5) Scrape putty: Apply putty to seal the trachoma and micropores on the concrete surface.
- 6) Spray polyurea: Spray with special polyurea spraying equipment and polyurea spray gun. Use cross method to repair leak spray and reduce stress.
- 7) Spraying aliphatic polyurea topcoat: Spraying with special polyurea spraying equipment and polyurea spray gun, spraying evenly without defects and leaking spray.

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6.Package

Two-component, A component 220KG / 200L barrel, B component 210KG / 200L barrel.

7.Color

Spray polyurea material standard color is gray, can also 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 ℃ in cool and dry place, avoid direct sunlight. / Nine months