Technical Data Sheet

Dupac®-923

Product Description

Dupac®-923 is a two-component, high cross-linking density, solvent-free, modified phenolic-epoxy anti-corrosive coating material.

Recommended Use

Dupac®-923 can be used as internal coating for steel pipe, vessel and storage tanks. The material has excellent chemical resistance,which can tolerate high temperature chemical immersion including crude oil with sour service, seawater and desalination seawater.Dupac®-923 can also be used as pipeline internal field coating material (IFJC).

Service temperature: Maximum, dry exposure only@150°C/302°F, wet exposure only @120°C/250°F.

Film Thickness and Spreading Rate

	Minimum	Maximum	Typical
Dry Film Thickness, μm	300	675	500
Wet Film Thickness, μm	300	675	500
Theoretical Spreading Rate, m^2/L	3.3	1.48	2.0

Material Properties

	Typical Value	Test Method
Color	Redbrown	Visual
Density, g/cm^3	1.5±0.1	ISO 8130-2
Volatile Content	100%	ASTM D2697

Coating Properties

	Typical Value	Test Method
Appearance	Smooth surface, uniform color	Visual
Hardness	2H	ASTM D3363
Adhesion, MPa	12	ISO 4624
Flexibility, 1.5°, 25°C	No crack	NACE RP0394
Impact Resistance, J	18	ASTM G14
Resistance to abrasion (1000g, 1000r, CS17 wheel), mg	65	ASTM D4040
Hot Water Immersion, 95°C, 30d	Coating intact	ISO 2812-2
Chemical resistance (ordinary temperature, 90d)		
10% NaOH	No change	ASTM G20
10% H2SO4	No change	ASTM G20
3% NaCl	No change	ASTM G20

Surface Preparation

Surface to be coated shall be dry, clean without contamination. All welding spots or slag shall be removed. Surface shall be treated and evaluated in accordance with ISO 8504.

Bare steel:
Cleanness: Shall be cleaned to a degree corresponding as a minimum to Sa 2.5 of ISO 8501-1:2007 by blasting.
Surface profile: Shall be blasted to a medium level in accordance with ISO 8503-2 (Ry5, 50-85μm) with suitable abrasives.

Application Conditions

Substrate temperature should not be lower than 5°C and at least 3°C above the dew point with maximum relative humidity of 80%. Temperature and relative humidity should be measured in a working place near the substrate. Enclosed spaces should have adequate ventilation to ensure proper drying. Hot air shall not be sent first when using forced ventilation to avoid surface crust and solvent strand. Care must be taken to ensure no contact with oil, chemicals or outside force happen before coating is hard dry.

Application Method

Spraying: Can be applied by heavy-duty, twin-feed, hot, airless spray equipment
Brushing: Recommended for stripe coating and small areas, care must be taken to achieve the specified dry film thickness.

Application Parameters

Mixing ratio by volume	base ： hardener 80:20 (4:1)
Mixing	Depending on the spray equipment used
Pot life (20°C)	Max. 1 hour. (And shall decrease with increasing of temperature)
Thinner/Cleaner	Special thinner（No thinner should be added）
Airless spray guidance parameter: Spraying nozzle pressure Spraying nozzle diameter Spraying range Filter	At 20°C (68°F) paint temperature min. 28.0 MPa (approx. 280 bar; 4061 p.s.i.)； At 30°C (86°F) min. 22.0 MPa (approx. 220 bar; 3191 p.s.i.) Approx. 0.53 mm (0.021 in) 40°-80° Recommended screen with more than 60 meshes. Regular check to ensure the cleanness of filter
Notice	*Heat A partto a temperatureof 50-60°C bywaterbathandkeepstirringifthecoating material is too stickytoapply. *Duetothe short potlifeaftermixing, sprayingnozzleandotherequipmentcomponentsshallbecleanedatonceafterapplication. *Appropriateaging (recommendedtomix A & B partandlayaside for 10min) shallbetakenwhenapplybybrushing. Potlifeshallbenoticedandthemixtureshallbeusedupwithinthe time.

Drying Time

Elements like ventilation, temperature, thickness, etc. will affect drying time.
Typical values given in table below are based on the following conditions:
Well ventilated, typical thickness, single coating on inert substrate.

Substrate temperature	10°C	20°C	30°C
Surface dry	15 hours	6 hours	1.5 hours
Hard dry	30 hours	16 hours	10 hours
Curing	7days	5 days	3 days
Min. coating interval	36 hours	24 hours	12 hours
Max. coating interval	90 days	60 days	30 days

Note: Coating shall be a better performance in sour service after 60-100℃ curing in oven.

Transportation and Storage

The product must be properly sealed, transported and stored to avoid direct sun and rain. Storage should be well ventilated, dry and cool, away from source of fire and living place. Validity of this product shall be within 12 months since manufacturing date.

Health and Safety

Before and during use, observe all safety labels on packaging and paint containers. For detailed information on the health and safety hazards and precautions for use of this product, refer to the Material Safety Data Sheet “MSDS Dupac®-923” and follow all local or national safety regulations.

Use in well ventilated areas. Wear personal protective equipments. Avoid inhalation, avoid contact with skin and eyes, and do not swallow. Spillage on the skin should immediately be removed with suitable cleaner, soap and water. Eyes should be well flushed with water and medical attention sought immediately.

Package Size

20L tinplate barrel

Date of Issue

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