SIGMA CONDUCTIVE 70

DESCRIPTION

Two-component, polyamine cured conductive phenolic epoxy

PRINCIPAL CHARACTERISTICS

- Conductive phenolic epoxy coating in protective coating systems for the inside protection of steel tanks for liquid fuel
- Good adhesion to steel
- Good flow and wetting properties
- Good water and corrosion resistance
- Good resistance to fuels and diesel oil
- Cures at temperatures down to 5°C (41°F)
- Carbon free conductive coating system, complies with GB50393

COLOR AND GLOSS LEVEL

- Redbrown, light gray
- Eggshell

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.4 kg/l (11.7 lb/US gal)
Volume solids	62 ± 2%
VOC (Supplied)	max. 365.0 g/l (approx. 3.0 lb/US gal) China GB 30981-2020 (tested) 276.0 g/l (approx. 2.3 lb/gal)
Recommended dry film thickness	100 - 150 µm (4.0 - 6.0 mils)
Theoretical spreading rate	6.2 m^2/l for 100 µm (249 ft^2/US gal for 4.0 mils)
Dry to touch	2 hours
Overcoating Interval	Minimum: 7 hours Maximum: 28 days
Shelf life	Base: at least 12 months when stored cool and dry Hardener: at least 24 months when stored cool and dry

Notes:
- See ADDITIONAL DATA – Spreading rate and film thickness
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time

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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Steel; blast cleaned to a minimum of ISO-Sa2½
- Previous coat of approved coating must be dry and free from any contamination
- Severe pitted steel; Please contact your PPG representative

Substrate temperature

- Substrate temperature during application and curing should be above 5°C (41°F)
- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point

SYSTEM SPECIFICATION

- 2 layers of 100 to 150 µm (4.0 mils to 6.0 mils)

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 78:22

- The temperature of the mixed base and hardener should preferably be above 15°C (59°F), otherwise extra thinner may be required to obtain application viscosity
- Too much thinner results in lower sag resistance and slower cure
- Thinner should be added after mixing the components

Induction time

Mixed product induction time	
Mixed product temperature	**Induction time**
15°C (59°F)	20 minutes
20°C (68°F)	10 minutes
25°C (77°F)	5 minutes

Pot life

2 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

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Airless spray

Recommended thinner
THINNER 91-92

Volume of thinner
0 - 10%, depending on required thickness and application conditions

Nozzle orifice
Approx. 0.46 – 0.53 mm (0.018 – 0.021 in)

Nozzle pressure
15.0 MPa (approx. 150 bar; 2176 p.s.i.)

Brush/roller

- For stripe coating and spot repair only

Recommended thinner
THINNER 91-92

Volume of thinner
0 – 5%

Cleaning solvent
THINNER 90-53

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
100 µm (4.0 mils)	6.2 m^2/l (249 ft^2/US gal)
150 µm (6.0 mils)	4.1 m^2/l (166 ft^2/US gal)

Overcoating interval for DFT up to 100 µm (4.0 mils)						
Overcoating with...	**Interval**	**5°C (41°F)**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**	**40°C (104°F)**
itself	Minimum	20 hours	14 hours	7 hours	4 hours	3 hours
	Maximum	28 days	28 days	28 days	20 days	14 days

Note: Surface should be dry and free from any contamination

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Curing time for DFT up to 100 µm (4.0 mils)		
Substrate temperature	**Dry to touch**	**Full cure**
5°C (41°F)	9 hours	21 days
10°C (50°F)	5 hours	14 days
15°C (59°F)	3 hours	10 days
20°C (68°F)	2 hours	7 days
30°C (86°F)	1 hour	5 days
40°C (104°F)	40 minutes	4 days

Note: Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
10°C (50°F)	3 hours
20°C (68°F)	2 hours
30°C (86°F)	1 hour

SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets
- This is a solvent-borne paint and care should be taken to avoid inhalation of spray mist or vapor, as well as contact between the wet paint and exposed skin or eyes

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective and Marine Coatings to supply the same product on a worldwide basis. However, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.

REFERENCES

• EXPLANATION TO PRODUCT DATA SHEETS	INFORMATION SHEET	1411
• SAFETY INDICATIONS	INFORMATION SHEET	1430
• SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD – TOXIC HAZARD	INFORMATION SHEET	1431
• SAFE WORKING IN CONFINED SPACES	INFORMATION SHEET	1433
• DIRECTIVES FOR VENTILATION PRACTICE	INFORMATION SHEET	1434

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