

PSX® 700

DESCRIPTION

Two-component, engineered siloxane coating

PRINCIPAL CHARACTERISTICS

- Unique, high gloss, isocyanate free solution
- Can be applied directly over inorganic zinc
- Excellent color and gloss retention
- Resists graffiti
- High solids, VOC compliant
- Applied by brush, roller or spray, without thinning
- Good resistance to splash and spillage of chemicals
- Can be applied as a single coat, direct-to-metal for moderately corrosive environments (ISO 12944 C1-C3)

COLOR AND GLOSS LEVEL

- Full color range
- High gloss

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	90 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 119.0 g/kg max. 164.0 g/l (approx. 1.4 lb/US gal) EPA Method 24: 0.7 lb/US gal (83.9 g/l) China GB 30981-2020 (tested) 71.0 g/l (approx. 0.6 lb/gal)
Temperature resistance (Continuous)	To 120°C (250°F)
Recommended dry film thickness	75 - 175 µm (3.0 - 7.0 mils) per coat
Theoretical spreading rate	7.2 m ² /l for 125 µm (289 ft ² /US gal for 5.0 mils)
Dry to touch	2 hours
Overcoating Interval	Minimum: 3 hours Maximum: Unlimited
Shelf life	Base: at least 36 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
- When applying more than one coat, it is recommended that the total DFT should not exceed 250 µm (10.0 mils)
- Color will drift at elevated temperatures



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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Coating performance is proportional to the degree of surface preparation
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Substrate conditions

- Steel; pretreated minimum ISO-Sa2 (SSPC SP-6) or higher with blasting profile 25 – 75 µm (1.0 – 3.0 mils)
 - For touch up and repair, power tool cleaning in accordance with SSPC SP-11 is acceptable
 - Galvanized steel; sweep blasted to roughen the surface to remove any zinc salts which might be present, SSPC SP-16 with blasting profile 40 – 75 µm (1.5 – 3.0 mils)
 - Stainless steel and non-ferrous metal; degreased and sweep blast, SSPC SP-16 with blasting profile 40 – 100 µm (1.5 – 4.0 mils)
 - Concrete / Masonry; see specific primer
 - Compatible previous coat must be dry and free from any contamination
 - When applied to zinc silicate primer, a mist coat and full coat technique is required. 15% thinning is recommended for mist coat
 - Aged suitable coating must be dry and free from any contamination, it may require abrading prior to applying this product
 - Prepare damaged areas to original surface preparation specifications, feathering edges of intact coating
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Substrate temperature

- Substrate temperature during application and curing should be above 0°C (32°F)
- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point
- Relative humidity during application and curing should be between 40% and 85%

Note: FD hardener should be used when ambient temperature is below 5°C (40°F)

SYSTEM SPECIFICATION

- Primers: Direct to substrate, DIMETCOTE Series, AMERCOAT 68 Series, AMERLOCK 400 / 2 Series, SIGMAZINC Series, AMERCOAT Epoxies and SIGMA Epoxies
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INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 80:20 (4:1)

- Use a power mixer powered by an air or explosion-proof electric motor
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Induction time

None

Pot life

4 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life



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Air spray

Recommended thinner

THINNER 60-12 (AMERCOAT 911) or THINNER 21-06 (AMERCOAT 65) for global, THINNER 21-25 (AMERCOAT 101) is recommended for above 90°F (32°C) in US only

Volume of thinner

5 - 10%, depending on required thickness and application conditions

Nozzle orifice

1.5 - 2.0 mm (approx. 0.060 - 0.079 in)

Nozzle pressure

0.3 - 0.4 MPa (approx. 3 - 4 bar; 44 - 58 p.s.i.)

Airless spray

Recommended thinner

THINNER 60-12 (AMERCOAT 911) or THINNER 21-06 (AMERCOAT 65) for global, THINNER 21-25 (AMERCOAT 101) is recommended for above 90°F (32°C) in US only

Volume of thinner

0 - 5%, depending on required thickness and application conditions

Nozzle orifice

Approx. 0.38 - 0.48 mm (0.015 - 0.019 in)

Nozzle pressure

20.0 MPa (approx. 200 bar; 2901 p.s.i.)

Brush/roller

- The recommended DFT cannot be reached in one coat
 - Use a high quality natural bristle brush and / or solvent resistant, short nap roller. Ensure brush / roller is well loaded to avoid air entrainment
 - Maintain a wet edge
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Cleaning solvent

THINNER 90-53, THINNER 90-58 (AMERCOAT 12) or THINNER 60-12 (AMERCOAT 911)

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ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
75 µm (3.0 mils)	12.0 m ² /l (481 ft ² /US gal)
125 µm (5.0 mils)	7.2 m ² /l (289 ft ² /US gal)
175 µm (7.0 mils)	5.1 m ² /l (206 ft ² /US gal)

Overcoating interval for DFT up to 175 µm (7.0 mils) at RH 40% or above						
Overcoating with...	Interval	0°C (32°F)	5°C (41°F)	10°C (50°F)	20°C (68°F)	30°C (86°F)
itself (when PSX 700 is used)	Minimum	N/A	20 hours	9 hours	4.5 hours	3 hours
	Maximum	N/A	Unlimited	Unlimited	Unlimited	Unlimited
itself (when PSX 700FD is used)	Minimum	20 hours	12 hours	7 hours	3 hours	2 hours
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited

Notes:

- Surface should be dry and free from any contamination
- When re-coat between dry to handle time and 7 days, solvent wipe surface with any of PSX 700 thinners prior to application of the second coat of PSX 700
- Hardener manufactured in Europe is fast drying version only with "PSX 700 FDE Hardener" name

Curing time with standard hardener for DFT up to 175 µm (7.0 mils) at RH 40% or above		
Substrate temperature	Dry to touch	Dry to handle
5°C (41°F)	9 hours	24 hours
10°C (50°F)	6 hours	11 hours
20°C (68°F)	3 hours	6 hours
30°C (86°F)	1.5 hours	4 hours

Curing time with FD(fast drying) hardener for DFT up to 175 µm (7.0 mils) at RH 40% or above		
Substrate temperature	Dry to touch	Dry to handle
0°C (32°F)	9 hours	24 hours
5°C (41°F)	7 hours	16 hours
10°C (50°F)	4.5 hours	8.5 hours
20°C (68°F)	2 hours	4.5 hours
30°C (86°F)	1 hour	3 hours

Notes:

- Adequate ventilation must be maintained during application and curing
- Hardener manufactured in Europe is fast drying version only with "PSX 700 FDE Hardener" name



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Pot life (at application viscosity)	
Mixed product temperature	Pot life
10°C (50°F)	6.5 hours
20°C (68°F)	4 hours
30°C (86°F)	1.5 hours

Note: Same pot life between normal and FD hardener

Product Qualifications

- SSPC Paint 36 Level 3 Performance
- NFPA Class A Flame Spread
- Qualified for ISO 12944 C5 with several systems
- Qualified for NORSOK M501 Rev.6 System 1 with several systems
- Meets requirements of ANSI N5.12 and ASTM D5144 for Coating Service Level II

SAFETY PRECAUTIONS

- See Safety Data Sheet and product label for complete safety and precaution requirements
- 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

WARRANTY

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

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