

PPG 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
- Resistant to graffiti removal solvents
- 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)
- Contains no reportable organic Hazardous Air Pollutants (HAPs)

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)
Temperature resistance (Continuous)	To 120°C (250°F)
Temperature resistance (Intermittent)	To 120°C (250°F)
Recommended dry film thickness	75 - 175 µm (3.0 - 7.0 mils) per coat
Theoretical spreading rate	7.2 m²/l for 125 µm (289 ft²/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:

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- 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

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Coating performance is proportional to the degree of surface preparation

Substrate conditions

- Steel; pretreated minimum ISO Sa2 (SSPC SP6) 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 SP11 is acceptable
- Galvanized steel; sweep blasted to roughen the surface to remove any zinc salts which might be present, SSPC SP16 with blasting profile 40 – 75 µm (1.5 – 3.0 mils)
- Stainless steel and non-ferrous metal; degreased and sweep blast, SSPC SP16 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

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)

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 4:1

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

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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 or THINNER 90-58 (AMERCOAT 12)

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

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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 hours	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

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

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WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective & 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

- Information sheet | Explanation of product data sheets

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