



# PSX 700

## Engineered Siloxane Coating

### Data Sheet: 700

Supersedes: 11/07

Revised: 03/08

*PSX Advantage: PSX 700 is a patented engineered siloxane coating which embodies the properties of both a high performance epoxy and a polyurethane in one coat. This multi-purpose coating offers "breakthrough" weather resistance and corrosion control.*

- Unique, high-gloss, super durable coating
- Can be applied directly over 2-pack epoxy zinc rich primers
- Cures at room temperature
- Gloss and appearance retention exceeding the best polyurethane
- Significantly lower applied costs
- Excellent to acids and corrosion.
- High solids, low VOC
- Resists high humidity and moisture
- Applied by brush, roller or spray
- Outstanding resistance to chemical splash and spill
- OEM version available for lower build applications which require improved levelling and flow.

### Typical Uses

PSX 700 offers significant advantages in that the system can normally be applied in two coats compared to the traditional systems using epoxies and urethanes. It provides very effective long-term corrosion control and weatherability.

- Structural steel - bridges, marine
- External tanks and pipe work
- Mineral processing, smelters and refineries
- Industrial plants – power, pulp and paper, wastewater treatment, chemical and petrochemical
- Concrete walls and floors
- Transportation – rail car exterior, vehicle equipment, buses, trucks
- Marine – decks, boottops, topside and superstructures on ships, barges and offshore platforms
- Indoor aquatic centres and sports stadiums
- Commercial buildings and shopping centres
- Airports and hospitals
- Coastal developments
- Offshore oil, LNG platforms, FPSO's and exterior of tankage

### Physical Data

Finish	Gloss
Colour	Large range of colours available
Components	2
Curing mechanism	Chemical reaction
Volume solids (White)	90 ± 3%
Volume solids (White) OEM	90 ± 3%
Volume solids (Metallic OEM)	73 ± 3%
Coats	1 or 2
Dry film thickness per coat	75-150 µm (85-165 µm wet)
OEM dry film thickness	50-75µm (55-85 µm wet)

Note: Total DFT of PSX 700 not to exceed 250µm

### Theoretical Coverage

at 125 microns	7.1 m <sup>2</sup> /L	
OEM colours (75 microns)	12 m <sup>2</sup> /L	
OEM Metallic (75 microns)	9..7 m <sup>2</sup> /L	
Temperature resistance, dry		°C
Continuous		93
Intermittent		121

### Qualifications

NFPA – Class A  
 USDA – Incidental food contact  
 NORSOK M-CR-501 (coating system 1)  
 ISO 12944 (Class C5M)  
 Shell Specification ES/011 Vol. 2 Rev. 7  
 ACQPA France  
 "O" Class fire rating (UK Building Regulations) based on testing according to BS476 Parts 6 and 7 (fire propagation and flame spread).

### Application Data

Apply over	Correctly prepared primed steel, galvanising or aluminium.
Surface preparation	
Steel / concrete	Refer application instructions for the specific primer used. Be sure primer is clean and dry when PSX700 is applied.
Method	Airless or conventional spray, brush or roller
Mixing ratio (by volume)	
Gloss finish	4 parts A to 1 part B
Semi gloss, OEM and Metallic	May vary, consult the label or customer service

### Pot Life (Hours)

700 / mixed paint	32°C	21°C	10°C
	1 ½	4	6 ½

## Typical Properties PSX 700

### Physical

Abrasion (ASTM D4060)	
1kg load/1000 cycles	weight loss
CS-17 wheel	53 mg
Adhesion, Elcometer	
(ASTM D4541)	2700 psi
Elongation (ASTM D522)	14%

### Performance

Salt spray (ASTM B117)	5500 hours
Face corrosion, blistering	None
Humidity (ASTM D2247)	5500 hours
Face corrosion, blistering	None
Gloss retention (ASTM G53) QUV-B bulb	
Greater than 50% gloss retention at 26 weeks	

## PSX 700 Chemical Resistance Guide

Environment	Splash Spillage	Fumes & Weather
Acidic	E	E
Alkaline	E	E
Salt solutions		
Acidic	E	E
Neutral	E	E
Alkaline	E	E
Fresh water	E	E
Solvents	E	E
Petroleum products	E	E

F= Fair G=Good E=Excellent

*This table is only a guide to show typical resistances of PSX 700. For specific recommendations, contact your PPG representative for your particular corrosion protection needs.*

## Systems Using PSX 700

	DFT	PSX 700 DFT
Steel (blasted Sa 2 ½ +)		
D9 SB Zinc Silicate	*65-75	75-125
Amercoat 68HS	70-85	75-125
Amercoat 471	70-85	75-125
Concrete **		
Amercoat 385	100-125	75-125
Amerlock 2	100-125	75-125
Aluminium – sweep blast		
Galvanised – sweep blast		
Amercoat 385	100-125	75-125
GRP (degrease & sand)		PSX 700 OEM
Amercoat 476	75-100	50-75

\* Tie coat recommended

\*\* as per Application Instructions

## Surface Preparation

Steel should be cleaned, free of oil and grease prior to abrasive blasting to Class 2 ½ or better AS/NZS 1627.4. Round off all rough welds and remove all weld spatter. Apply recommended primer as per instructions.

### Environmental Conditions

Temperature	
Air	4 to 35°C
Surface	4 to 35°C
Relative humidity	40% minimum

*Surface temperatures must be at least 3°C above dew point to prevent condensation during application and initial dry through. Low temperatures and relative humidity below 40% will extend cure time. Refer to the application guide for additional information.*

### Heat Curing

Allow PSX700 to dry to touch before exposing to curing temperatures above 60°C.

### Drying Time (ASTM D1640) (Hours) @ 40% R.H. or above

	32°C	21°C	10°C
Touch (700)	1	2	4 ½
Through (700)	3	4 ½	8 ½

### Recoat Time (hours) @ 40% R.H. or above

	32°C	21°C	10°C
Minimum	2	3	7
Maximum	None		

Thinner Thinner 140

Equipment cleaner Thinner 304

### Shelf life when stored indoors at 4 to 38°C

Part A & B 2 years from shipment date

*Numerical values are subject to normal manufacturing tolerances, colours and testing variances. Allow for application losses and surface irregularities.*

## Safety Precautions

**Improper use and handling of this product can be hazardous to health.**

Read each component's material safety data sheet before use. Mixed material has hazards of each component.

This product is only for industrial use by experienced applicators.

Keep away from children. When mixing or applying wear goggles and gloves and ensure good ventilation. When spraying, wear appropriate protective clothing and air supply. If splashed on skin, wash with soap and water. Adequate forced ventilation must be provided in confined spaces.

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**PPG INDUSTRIES PTY. LTD. McNaughton Road, Clayton VIC 3168 – 24 hr Emergency Telephone 1800 033111**  
Telephone : (03) 9263 6000, Customer service: 1300 659 666