

PITPGUARD® | 97-946 SERIES

DESCRIPTION

Surface tolerant epoxy

PRINCIPAL CHARACTERISTICS

- Fast drying properties
- VOC compliant for <250 g/L specifications
- High performance coating for new or old steel
- Self Priming in many applications
- Compatible with prepared damp surfaces
- Compatible with adherent rust remaining on prepared surfaces
- Can be applied and cured at low temperatures

COLOR AND GLOSS LEVEL

- White, Gray, Beige
- Semi-gloss

Note: Epoxy coatings will characteristically chalk and fade upon exposure to sunlight. Light colors are prone to ambering to some extent in interior or exterior exposures

BASIC DATA AT 68°F (20°C)

Data for mixed product	
Number of components	Two
Volume solids	72 ± 3%
VOC (Supplied)	max. 2.0 lb/US gal (approx. 240 g/l)
Temperature resistance (Continuous)	To 300°F (149°C)
Temperature resistance (Intermittent)	To 400°F (204°C)
Recommended dry film thickness	4.0 - 7.0 mils (100 - 175 µm) depending on system
Theoretical spreading rate	289 ft ² /US gal for 4.0 mils (7.2 m ² /l for 100 µm)
Shelf life	Base: at least 36 months when stored cool and dry Hardener: at least 36 months when stored cool and dry

Notes:

- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time
- Discoloration will occur at high temperatures

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Coating performance is, in general, proportional to the degree of surface preparation



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Steel

- Remove weld spatter, protrusions, and laminations in steel. Grind welds smooth in accordance with NACE RP-0178
- Remove all surface contaminants, oil and grease in accordance with SSPC SP-1
- Abrasive blast with an angular abrasive to an SSPC SP-10 cleanliness or higher for tank lining service. Achieve a surface profile of 2.0 – 4.0 mils (50 – 100 µm)
- For atmospheric service, abrasive blast to SSPC SP-6 standards
- The product may be applied over an SSPC SP-12 WJ-2(L) for non-tank lining applications where a previous blast profile can be exposed.
- For maintenance and repair in atmospheric service, the product can be applied over surfaces prepared in accordance with SSPC SP-2 or SSPC SP-3 (hand and power tool cleaning).
- AMERCOAT 114 A may be used as a pit filler for severely pitted steel and surface discontinuities
- Check with PPG technical service for the maximum allowable soluble salt level for water immersion service. This will vary based on the water chemistry and service temperatures

Concrete

- Remove all surface contaminants such as oil, grease, and embedded chemicals
- Abrade surface per ASTM D-4259 to remove all efflorescence and laitance, to expose subsurface voids, and to provide a surface roughness equivalent of 60 grit sandpaper or coarser
- Surface should be free from moisture in accordance with ASTM D4263. Refer to Information Sheet # 1496ACUS for further details regarding moisture measurements
- Slabs on grade should have a maximum moisture content of 3 lbs / 1,000 ft²/24 hours when measured by calcium chloride test

Non-ferrous metals

- Lightly abrasive blast or mechanically abrade in accordance with SSPC SP-16 to achieve a uniform and dense 1.5 – 4.0 mil anchor profile

Galvanizing

- Remove oil or soap film with detergent or emulsion cleaner, then use a phosphatizing conversion coating
- Alternately, power tool clean to uniformly abrade the surface or lightly abrasive blast with a fine abrasive to produce a uniform and dense anchor profile of 1.0 – 3.0 mils (25 – 75 µm)
- Galvanizing that has had at least 12 months of exterior weathering may be coated after power washing to remove all contaminants and white rust
- Galvanized surfaces that have been passivated with a chromate treatment must be abrasive blasted. Coatings may not adhere to chromate sealed galvanizing if the chromates are not completely removed.

Stainless steel

- Abrasive blast cleaning to SSPC SP-10 standards (SP-16 for stainless steel) using a fine abrasive to obtain an angular 1.0-1.5 mil anchor profile. Blast stainless steel with a non-metallic abrasive



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Aged coatings and repairs

- Ensure the coating system is sound and well adhered
- Do not apply over acrylic coatings or coatings that exhibit poor solvent resistance
- A test patch is recommended to determine compatibility and adhesion
- Sweep blast or otherwise thoroughly abrade the existing coating in accordance with SSPC SP-7
- Alternately, PREP 88 may be used to prepare some existing coatings. Please refer to PREP 88 data sheet for details
- Feather the edges of tightly adhered, in-tact coatings at the perimeter of repair areas
- Power tool clean the existing steel in accordance with SSPC SP-3 (atmospheric service) or SSPC SP-11 (immersion service)

Substrate temperature and application conditions

- Surface temperature during application should be between 35°F (2°C) and 130°F (54°C)
- Surface temperature during application should be at least 5°F (3°C) above dew point
- Ambient temperature during application and curing should be between 35°F (2°C) and 100°F (38°C)
- Relative humidity during application and curing should not exceed 85%

Warning

Removal of old paint by sanding, scraping or other means may generate dust or fumes which contain lead. EXPOSURE TO LEAD DUST OR FUMES MAY CAUSE ADVERSE HEALTH EFFECTS, ESPECIALLY IN CHILDREN OR PREGNANT WOMEN. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted and approved (e.g., NIOSH approved) respirator and proper containment and cleanup. For additional information, contact the USEPA/Lead Information Hotline at 1-800-424-LEAD or the regional Health Canada office

SYSTEM SPECIFICATION

- Primers: Direct to substrate; AQUAPON 97-670, AQUAPON 97-670 VOC, METALHIDE 2000, DURETHANE MCZ, DIMETCOTE- Series Primers, AMERCOAT 68HS, AMERCOAT 68MCZ
- Topcoats: PITTHANE polyurethanes, AMERCOAT polyurethanes, PSX 700, PSX One

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 50:50 (1:1)

- Pre-mix pigmented components with a pneumatic air mixer at moderate speeds to homogenize the container. Add hardener to base and agitate with a power mixer for 1–2 minutes until completely dispersed

Induction time

Mixed product induction time	
Mixed product temperature	Induction time
35°F (2°C)	40 minutes
50°F (10°C)	20 minutes
70°F (21°C)	10 minutes
90°F (32°C)	None



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Pot life

4 hours at 70°F (21°C)

Note: See ADDITIONAL DATA – Pot life

Application

- Area should be sheltered from airborne particulates and pollutants
- Avoid combustion gases or other sources of carbon dioxide that may promote amine blush and ambering of light colors
- Ensure good ventilation during application and curing
- Provide shelter to prevent wind from affecting spray patterns

Material temperature

Material temperature during application should be between 35°F (2°C) and 90°F (32°C)

Air spray

- Use standard conventional equipment

Recommended thinner

THINNER 21-06 (97-727), THINNER 91-82 (AMERCOAT T-10), THINNER 91-31 (97-734) or THINNER 21-25 (AMERCOAT 101) is recommended for > 90F (32C)

Volume of thinner

0 - 15%

Nozzle orifice

Approx. 0.070 in (1.8 mm)

Airless spray

- 45:1 pump or larger

Recommended thinner

THINNER 21-06 (97-727), THINNER 91-82 (AMERCOAT T-10), THINNER 91-31 (97-734) or THINNER 21-25 (AMERCOAT 101) is recommended for > 90F (32C)

Volume of thinner

0 - 10%

Nozzle orifice

0.017 – 0.021 in (approx. 0.43 – 0.53 mm)



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Brush/roller

- Use a high quality natural bristle brush and/or solvent resistant, 3/8" nap roller. Ensure brush/roller is well loaded to avoid air entrainment. Multiple coats may be necessary to achieve adequate film-build

Recommended thinner

THINNER 21-06 (97-727), THINNER 91-82 (AMERCOAT T-10), THINNER 91-31 (97-734) or THINNER 21-25 (AMERCOAT 101) is recommended for > 90F (32C)

Volume of thinner

0 – 5%

Cleaning solvent

THINNER 90-58 (AMERCOAT 12) or THINNER 21-06 (97-727)

ADDITIONAL DATA

Overcoating interval for DFT up to 5.0 mils (125 µm)					
Overcoating with...	Interval	32°F (0°C)	50°F (10°C)	70°F (21°C)	90°F (32°C)
itself	Minimum	24 hours	6 hours	3 hours	1.5 hours
	Maximum	3 months	2 months	30 days	15 days
urethane and PSX	Minimum	24 hours	6 hours	3 hours	1.5 hours
	Maximum	30 days	30 days	30 days	15 days

Notes:

- Dry times are dependent on air and surface temperatures as well as film thickness, ventilation, and relative humidity. Maximum recoating time is highly dependent upon actual surface temperatures – not simply air temperatures. Surface temperatures should be monitored, especially with sun-exposed or otherwise heated surfaces. Higher surface temperatures shorten the maximum recoat window
- Surface must be clean and dry. Any contamination must be identified and removed. A detergent wash with PREP 88 or equivalent is required prior to application of topcoats after 30 days of exposure. However, particular attention must be paid to surfaces exposed to sunlight where chalking may be present. In those situations, a further degree of cleaning may be required. PPG Technical Service can advise on suitable cleaning methods. If maximum recoat/topcoat time is exceeded, then roughen surface.

Curing time for DFT up to 5.0 mils (125 µm)			
Substrate temperature	Dry to touch	Dry to handle	Service- water immersion
35°F (2°C)	24 hours	38 hours	21 days
50°F (10°C)	8 hours	16 hours	7 days
70°F (21°C)	4 hours	8 hours	5 days
90°F (32°C)	1 hour	4 hours	3 days



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Pot life (at application viscosity)	
Mixed product temperature	Pot life
50°F (10°C)	8 hours
70°F (21°C)	4 hours
90°F (32°C)	1.5 hours

DISCLAIMER

- For industrial or professional use only

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

Danger

Rags, steel wool or waste soaked with this product may spontaneously catch fire if improperly discarded. Immediately after use, place rags, steel wool or waste in a sealed water-filled metal container. Refer to www.pittsburghpaints.com, Spontaneous Combustion Advisory for additional information

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

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|--|-------------------|------|
| • CONVERSION TABLES | INFORMATION SHEET | 1410 |
| • 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 |

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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AVAILABILITY

Packaging

2-gallon and 10-gallon kits

Product codes	Description
97-946	White
97-947	Beige
97-948	Gray
97-949	Hardener

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