

AMERCOAT® 391 PC

DESCRIPTION

Two-component, solvent-free, polyamine-cured epoxy coating

PRINCIPAL CHARACTERISTICS

- Solvent-free coating for the protection of pipes against the effects of salt, waste, deionized and drinking water, crude and refined oil products
- Can be applied at a dry-film thickness (DFT) up to 1000 µm (40.0 mils)
- Excellent abrasion resistance
- Excellent resistance to cathodic protection
- Approved by Gubkin Russian State University of Oil and Gas, for internal coating of crude oil pipes
- Approved in Russia for contact with drinking water in pipes, pools and reservoirs

COLOR AND GLOSS LEVEL

- Gray
- Gloss

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.5 kg/l (12.5 lb/US gal)
Volume solids	100%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 71.0 g/kg max. 106.0 g/l (approx. 0.9 lb/US gal)
Recommended dry film thickness	400 - 1000 µm (16.0 - 40.0 mils) per coat
Theoretical spreading rate	2.5 m ² /l for 400 µm (100 ft ² /US gal for 16.0 mils)
Dry to touch	2 hours
Overcoating Interval	4 hours
Full cure after	12 hours
Shelf life	Base: at least 24 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

- Steel should be blast cleaned to ISO-Sa2½, blasting profile 50 – 100 µm (2.0 – 4.0 mils)
- For more severe service and immersion, clean to ISO-Sa3

Notes:

- The choice of surface preparation will depend on the system required and the end-use service conditions
- An even pipe temperature will ensure an even curing and appearance (flow and gloss)

Concrete

- Contact your PPG representative for specific recommendations

Substrate temperature and application conditions

- Surface temperature during application should be between 5°C (41°F) and 60°C (140°F)
- Surface temperature during application should be at least 3°C (5°F) above dew point
- Ambient temperature during application and curing should be between 5°C (41°F) and 50°C (122°F)

Note: Lower temperature will reduce flow properties

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 66.7:33.3 (2:1)

- Application with twin-feed hot airless spray equipment
- No thinner should be added

Induction time

None

Pot life

5 minutes at 60°C (140°F)

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Airless spray

- Twin-feed, hot airless spray
- Pumping viscosity is achieved at 40°C (104°F) to 60°C (140°F)
- Temperature in the mixing unit must be between 50°C (122°F) and 65°C (149°F)
- Material may have to be heated above 50°C (120°F) to achieve required temperature at the tip, depending on length of line and ambient conditions

Recommended thinner

No thinner should be added

Nozzle orifice

Approx. 0.48 – 0.89 mm (0.019 – 0.035 in)

Nozzle pressure

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

Note: Temperature at nozzle between 50°C (122°F) and 60°C (140°F)

Cleaning solvent

THINNER 90-53, THINNER 90-83 or THINNER 90-58

Cleaning procedures

- Mixed material will become insoluble within a few minutes after mixing at 60°C (140°F)
- Parts of the spraying equipment containing mixed base and hardener must be cleaned immediately after completion of the job or during any interruption

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
400 µm (16.0 mils)	2.5 m ² /l (100 ft ² /US gal)
1000 µm (40.0 mils)	1.0 m ² /l (40 ft ² /US gal)

Overcoating interval for DFT up to 1000 µm (40.0 mils)				
Overcoating with...	Interval	10°C (50°F)	20°C (68°F)	30°C (86°F)
itself	Minimum	7 hours	4 hours	2 hours
	Maximum	24 hours	16 hours	8 hours

Note: For a good intercoat adhesion it is necessary that a coated surface which should be repaired or completely recoated is roughened up by means of sweep blasting or abrading

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Curing time for DFT up to 1000 µm (40.0 mils)

Substrate temperature	Dry to touch	Dry to handle	Full cure non-immersed	Full cure water-immersed
10°C (50°F)	3 hours	8 hours	24 hours	7 days
20°C (68°F)	2 hours	5 hours	12 hours	7 days
30°C (86°F)	1 hour	3 hours	6 hours	7 days

Notes:

- Curing temperature below 10°C (50°F) is not recommended
- Adequate ventilation must be maintained during application and curing

SAFETY PRECAUTIONS

- Although this is a solvent-free paint, care should be taken to avoid inhalation of spray mist, as well as contact between the wet paint and exposed skin or eyes
- No solvent present; however, spray mist is not harmless, a fresh air mask should be used during spraying
- Ventilation should be provided in confined spaces to maintain good visibility
- Protective clothing and spray masks should be provided to avoid any dermatitic or toxic hazard

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.

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