PPG AQUACOVER™ 400

(SIGMA AQUACOVER™ 400)

DESCRIPTION

Two-component, polyamine-cured, waterborne epoxy coating

PRINCIPAL CHARACTERISTICS

- General-purpose epoxy buildcoat in protective coating systems, for steel structures in atmospheric exposure
- Particularly suitable when solvents are not permitted because of health and safety reasons
- Free from lead- and chromate-containing pigments
- Can be overcoated with most dispersion and alkyd paints, and two-component durable finishes
- Easy application by brush/roller and (airless) spray
- Suitable for concrete floors

COLOR AND GLOSS LEVEL

- Limited color range available
- Semi-gloss

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.3 kg/l (10.8 lb/US gal)
Volume solids	53 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 5.0 g/kg max. 6.0 g/l (approx. 0.1 lb/US gal)
Recommended dry film thickness	75 - 100 µm (3.0 - 4.0 mils) depending on system
Theoretical spreading rate	7.1 m^2/l for 75 µm (283 ft^2/US gal for 3.0 mils) 5.3 m^2/l for 100 µm (213 ft^2/US gal for 4.0 mils)
Dry to touch	1.5 hours
Overcoating Interval	Minimum: 2 hours Maximum: 6 months
Full cure after	4 days
Shelf life	Base: at least 6 months when stored cool and dry Hardener: at least 6 months when stored cool and dry

Notes:
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time

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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Steel with suitable primer must be dry and free from any contamination within the recoat times
- Galvanized surfaces are variable and the preferred method of treatment is to lightly sweep blast followed by degreasing and cleaning
- Concrete; surface must be cured, clean, dry and free of desintegrated or chalky materials

Substrate temperature and application conditions

- Substrate temperature during application and curing should be above 10°C (50°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 not exceed 75%

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 70:30

- Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)
- Must be protected from freezing at all times during storage and/or transport
- Too much water results in reduced sag resistance and slower cure
- The temperature of the mixed base and hardener should preferably be above 15°C (59°F), otherwise extra thinner may be required to obtain application viscosity
- Water should be added after mixing the components

Induction time

None

Pot life

3 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

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Airless spray

Recommended thinner
Tap water

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

Nozzle orifice
Approx. 0.48 mm (0.019 in)

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

Brush/roller

Recommended thinner
Tap water

Volume of thinner
0 – 5%

Cleaning solvent
The following tables illustrate the cleaning procedure of the spray equipment when changing from spraying with solvent-borne paint to waterborne paints (table 1) and from waterborne paints to solvent-borne paints (table 2)

Notes:
- Cleaning procedures of the spray equipment
- Pulsator filter and tip filter must be taken out of the equipment and cleaned properly

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Table 1: Cleaning procedure from solvent-borne to waterborne paints	
Steps	**Cleaning text**
1st cleaning	THINNER 90-53
2nd cleaning	THINNER 70-05
3rd cleaning	With warm tap water of 30°C (86°F) to 35°C (95°F) after which waterborne paints can be sprayed

Table 2: Cleaning procedure from waterborne to solvent-borne paints	
Steps	**Cleaning text**
1st cleaning	Warm tap water of 30°C (86°F) to 35°C (95°F)
2nd cleaning	THINNER 70-05
3rd cleaning	THINNER 90-53

ADDITIONAL DATA

Overcoating interval for DFT up to 100 µm (4.0 mils)					
Overcoating with...	**Interval**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**	**40°C (104°F)**
itself	Minimum	3 hours	2 hours	1 hour	45 minutes
	Maximum	6 months	6 months	6 months	6 months
SIGMADUR 520 and SIGMADUR 550	Minimum	24 hours	16 hours	12 hours	8 hours
	Maximum	6 months	6 months	6 months	6 months

Curing time for DFT up to 100 µm (4.0 mils)			
Substrate temperature	**Dry to touch**	**Dry to handle**	**Full cure**
10°C (50°F)	3 hours	18 hours	6 days
20°C (68°F)	1.5 hours	6 hours	4 days
30°C (86°F)	1 hour	5 hours	3 days
40°C (104°F)	45 minutes	4 hours	48 hours

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Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
10°C (50°F)	4 hours
20°C (68°F)	3 hours
30°C (86°F)	2 hours
40°C (104°F)	1 hour

SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets
- Although this is a waterborne paint, care should be taken to avoid inhalation of spray mist, 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

• 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
• SAFE WORKING IN CONFINED SPACES	INFORMATION SHEET	1433
• DIRECTIVES FOR VENTILATION PRACTICE	INFORMATION SHEET	1434
• CLEANING OF STEEL AND REMOVAL OF RUST	INFORMATION SHEET	1490
• SURFACE PREPARATION OF CONCRETE (FLOORS)	INFORMATION SHEET	1496
• RELATIVE HUMIDITY – SUBSTRATE TEMPERATURE – AIR TEMPERATURE	INFORMATION SHEET	1650

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