April 13, 2018 (Revision of March 4, 2018)

SIGMAFAST™ 205

DESCRIPTION

Two-component, high-build, polyamide-cured zinc phosphate epoxy primer/coating

PRINCIPAL CHARACTERISTICS

- General-purpose epoxy primer/coating for atmospheric conditions
- Fast-curing
- Suitable for the protection of steel and concrete
- Easy application by airless spray
- Recoatable with most two-component epoxy and polyurethane coatings
- Tough, with long-term flexibility

COLOR AND GLOSS LEVEL

- A wide range of colors and MIO light available
- Semi-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	70 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 224.0 g/kg UK PG 6/23(92) Appendix 3: max. 322.0 g/l (approx. 2.7 lb/US gal) EUR Directive: 2004/42/IIA(j)(500) 411 g/l)
Recommended dry film thickness	75 - 150 µm (3.0 - 6.0 mils) depending on system
Theoretical spreading rate	9.3 m^2/l for 75 µm (374 ft^2/US gal for 3.0 mils) 4.7 m^2/l for 150 µm (187 ft^2/US gal for 6.0 mils)
Dry to touch	3 hours
Overcoating Interval	Minimum: 4 hours Maximum: 6 months
Full cure after	3 days
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

Substrate conditions

- Steel; blast cleaned to ISO-Sa2½, blasting profile 40 – 70 µm (1.6 – 2.8 mils)

Concrete

- Dried for at least 28 days in good ventilation conditions
- Moisture content should not exceed 4.5%
- Concrete must be free from laitance and any contamination
- Rough surface; eventually abraded by power tool or diamond abrading tool

Substrate temperature and application conditions

- Substrate temperature during application and curing should be above 5°C (41°F)
- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 75:25 (3:1)

- 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
- Adding too much thinner results in reduced sag resistance and slower cure
- Thinner should be added after mixing the components

Induction time

Mixed product induction time	
Mixed product temperature	**Induction time**
Below 10°C (50°F)	10 minutes
Above 10°C (50°F)	None

Pot life

6 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

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Air spray

Recommended thinner
THINNER 91-92

Volume of thinner
5 - 15%, depending on required thickness and application conditions

Nozzle orifice
1.5 – 3.0 mm (approx. 0.060 – 0.110 in)

Nozzle pressure
0.3 - 0.4 MPa (approx. 3 - 4 bar; 44 - 58 p.s.i.)

Airless spray

Recommended thinner
THINNER 91-92

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
THINNER 91-92

Volume of thinner
0 – 5%

Cleaning solvent
THINNER 90-53

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
75 µm (3.0 mils)	9.3 m^2/l (374 ft^2/US gal)
100 µm (4.0 mils)	7.0 m^2/l (281 ft^2/US gal)
150 µm (6.0 mils)	4.7 m^2/l (187 ft^2/US gal)

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Overcoating interval for DFT up to 75 µm (3.0 mils)						
Overcoating with...	**Interval**	**5°C (41°F)**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**	**40°C (104°F)**
various two-pack epoxy and polyurethane coatings	Minimum Maximum	12 hours 6 months	6 hours 6 months	3 hours 6 months	2 hours 6 months	1 hour 6 months

Overcoating interval for DFT up to 150 µm (6.0 mils)						
Overcoating with...	**Interval**	**5°C (41°F)**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**	**40°C (104°F)**
various two-pack epoxy and polyurethane coatings	Minimum Maximum	12 hours 6 months	6 hours 6 months	4 hours 6 months	3 hours 6 months	2 hours 6 months

Note: Surface should be dry and free from any contamination

Curing time for DFT up to 75 µm (3.0 mils)			
Substrate temperature	**Dry to touch**	**Dry to handle**	**Full cure**
5°C (41°F)	12 hours	16 hours	7 days
10°C (50°F)	7 hours	10 hours	5 days
20°C (68°F)	3 hours	5 hours	3 days
30°C (86°F)	1.5 hours	3 hours	60 hours
40°C (104°F)	1 hour	2 hours	36 hours

Curing time for DFT up to 150 µm (6.0 mils)			
Substrate temperature	**Dry to touch**	**Dry to handle**	**Full cure**
5°C (41°F)	14 hours	18 hours	8 days
10°C (50°F)	8 hours	12 hours	6 days
20°C (68°F)	4 hours	6 hours	4 days
30°C (86°F)	2 hours	4 hours	3 days
40°C (104°F)	1 hour	3 hours	48 hours

Note: Adequate ventilation must be maintained during application and curing

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
10°C (50°F)	10 hours
20°C (68°F)	6 hours
30°C (86°F)	3 hours

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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

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
• RELATIVE HUMIDITY – SUBSTRATE TEMPERATURE – AIR TEMPERATURE	INFORMATION SHEET	1650

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