SIGMAFAST™ 210 HS

DESCRIPTION

Two-component, high solids, high-build zinc phosphate polyurethane primer/finish

PRINCIPAL CHARACTERISTICS

- Fast curing
- Specially designed for in-shop application
- Easy application by airless spray
- Unlimited recoatable
- Good adhesion to steel and galvanized steel
- Good resistance to atmospheric exposure
- Good color and gloss retention
- Cures down to –5°C (23°F)
- Drying and curing times can be reduced significantly using PPG 866M ACCELERATOR

COLOR AND GLOSS LEVEL

- A wide range of colors is available through PPG colornet tinting system
- Semi-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	67 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 233.0 g/kg max. 349.0 g/l (approx. 2.9 lb/US gal) China GB 30981-2020 (tested) 355.0 g/l (approx. 3.0 lb/gal)
Recommended dry film thickness	50 - 150 µm (2.0 - 6.0 mils)
Theoretical spreading rate	8.9 m^2/l for 75 µm (358 ft^2/US gal for 3.0 mils) 6.7 m^2/l for 100 µm (269 ft^2/US gal for 4.0 mils)
Dry to touch	1.5 hours
Overcoating Interval	Minimum: 6 hours Maximum: Unlimited
Full cure after	4 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

Steel

- Steel; blast cleaned to ISO-Sa2½, blasting profile 40 – 70 µm (1.6 – 1.8 mils), or powertool cleaned to ISO-St3

Galvanized steel

- Surface must be dry and free from any contamination
- Surface should be sufficiently roughened (e.g. sandpapering, sweep blasting)

Substrate temperature

- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point
- Substrate temperature during application and curing down to -5°C (23°F) is acceptable; provided the substrate is free from ice and dry
- Relative humidity during application and curing should not exceed 85%

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 90:10 (9:1)

- The temperature of the mixed base and hardener should be above 10°C (50°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

None

Pot life

3 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

Air spray

Recommended thinner

THINNER 21-06

Volume of thinner

5 - 10%, depending on required thickness and application conditions

Nozzle orifice

1.0 - 1.5 mm (approx. 0.040 - 0.060 in)

Nozzle pressure

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

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Airless spray

Recommended thinner
THINNER 21-06

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

Nozzle orifice
Approx. 0.46 mm (0.018 in)

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

Brush/roller

Recommended thinner
THINNER 21-06

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)	8.9 m^2/l (358 ft^2/US gal)
100 µm (4.0 mils)	6.7 m^2/l (269 ft^2/US gal)
150 µm (6.0 mils)	4.5 m^2/l (179 ft^2/US gal)

Overcoating interval for DFT up to 120 µm (4.7 mils)						
Overcoating with...	**Interval**	**-5°C (23°F)**	**0°C (32°F)**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**
itself and two-component polyurethane finishes	Minimum	24 hours	18 hours	8 hours	6 hours	4 hours
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited

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Overcoating interval with PPG 866M ACCELERATOR for DFT up to 120 µm (4.7 mils)						
Overcoating with...	**Interval**	**-5°C (23°F)**	**0°C (32°F)**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**
itself and two-component polyurethane finishes	Minimum Maximum	20 hours Unlimited	16 hours Unlimited	6 hours Unlimited	4 hours Unlimited	3 hours Unlimited

Note: Surface should be dry and free from any contamination

Curing time for DFT up to 120 µm (4.7 mils)			
Substrate temperature	**Dry to touch**	**Dry to handle**	**Full cure**
-5°C (23°F)	10 hours	28 hours	15 days
0°C (32°F)	6 hours	18 hours	11 days
5°C (41°F)	3 hours	11 hours	8 days
10°C (50°F)	2.5 hours	5 hours	5 days
20°C (68°F)	1.5 hours	4 hours	4 days
30°C (86°F)	1 hour	3 hours	3 days

Notes:
- Adequate ventilation must be maintained during application and curing
- Premature exposure to early condensation and rain may cause color and gloss change

Curing time with PPG 866M ACCELERATOR for DFT up to 120 µm (4.7 mils)			
Substrate temperature	**Dry to touch**	**Dry to handle**	**Full cure**
-5°C (23°F)	8 hours	24 hours	15 days
0°C (32°F)	5 hours	15 hours	11 days
5°C (41°F)	2.5 hours	8 hours	8 days
10°C (50°F)	2 hours	3 hours	5 days
20°C (68°F)	1 hour	2 hours	4 days
30°C (86°F)	45 minutes	1.5 hours	3 days

Notes:
- Adequate ventilation must be maintained during application and curing
- Premature exposure to early condensation and rain may cause color and gloss change

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)	1 hour

Note: Mixing this product with PPG 866M ACCELERATOR will not affect the pot life

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SAFETY PRECAUTIONS

- See Safety Data Sheet and product label for complete safety and precaution requirements
- 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

• EXPLANATION TO PRODUCT DATA SHEETS	INFORMATION SHEET	1411

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