

PPG SIGMAFAST™ 210 HS

DESCRIPTION

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

PRINCIPAL CHARACTERISTICS

- Can be applied as a single coat, direct-to-metal for moderately corrosive environments (ISO 12944-2 C1-C4H)
- Speed curing in steel fabrication
- Good color and gloss retention
- Excellent adhesion to steel, galvanized steel and non-ferrous metals
- Cures at temperatures down to -5°C (23°F)
- Drying and curing times can be reduced significantly using PPG 866M ACCELERATOR
- ACQPA 39131-certified

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)
Recommended dry film thickness	50 - 150 µm (2.0 - 6.0 mils)
Theoretical spreading rate	8.9 m²/l for 75 µm (358 ft²/US gal for 3.0 mils) 6.7 m²/l for 100 µm (269 ft²/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 36 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

PPG SIGMAFAST™ 210 HS

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Steel

- Steel; blast cleaned to ISO Sa2½ or minimum SSPC SP6, blasting profile 40 – 70 µm (1.6 – 2.8 mils) or power tool cleaned to minimum ISO St3 / SSPC SP3
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Primed steel or previous coat

- Previous suitable coat must be dry and free from any contamination
 - Surface of previous coat should be sufficiently roughened if necessary
 - When applied to zinc silicate, a mist coat and full coat technique is required
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Galvanized steel

- The surface must be properly prepared, dry, clean and free of any contamination
 - The surface should be sufficiently roughened by sweep blasting to achieve a uniform matt appearance
 - Sweep blast in accordance with the SSPC SP16 guidelines
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Aluminum

- The surface must be properly prepared, dry, clean and free of any contamination
 - Sweep blast in accordance with the SSPC SP16 guidelines
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Substrate temperature and application conditions

- 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%
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INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 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
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Pot life

3 hours at 20°C (68°F)

Note:

- See ADDITIONAL DATA – Pot life
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PPG SIGMAFAST™ 210 HS

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.)

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
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PPG SIGMAFAST™ 210 HS

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

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	20 hours	16 hours	6 hours	4 hours	3 hours
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited	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

PPG SIGMAFAST™ 210 HS

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

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 & 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

- Information sheet | Explanation of product data sheets

PPG SIGMAFAST™ 210 HS

WARRANTY

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