

# 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 retention
- Non-chalking, non-yellowing
- Cures down to  $-5^{\circ}\text{C}$  ( $23^{\circ}\text{F}$ )
- 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 1999/13/EC, SED: max. 233.0 g/kg max. 349.0 g/l (approx. 2.9 lb/US gal)
Recommended dry film thickness	75 - 150 µm (3.0 - 6.0 mils)
Theoretical spreading rate	8.9 m <sup>2</sup> /l for 75 µm (358 ft <sup>2</sup> /US gal for 3.0 mils) 6.7 m <sup>2</sup> /l for 100 µm (269 ft <sup>2</sup> /US gal for 4.0 mils)
Dry to touch	1.5 hours
Overcoating Interval	Minimum: 6 hours Maximum: Unlimited
Full cure after	4 days

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## Data for mixed product

### 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

## RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

### Steel

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

### 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



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## 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.)

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## Brush/roller

### **Recommended thinner**

THINNER 21-06

### **Volume of thinner**

0 - 5%

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## Cleaning solvent

THINNER 90-53

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## ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
75 µm (3.0 mils)	8.9 m <sup>2</sup> /l (358 ft <sup>2</sup> /US gal)
100 µm (4.0 mils)	6.7 m <sup>2</sup> /l (269 ft <sup>2</sup> /US gal)
150 µm (6.0 mils)	4.5 m <sup>2</sup> /l (179 ft <sup>2</sup> /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

Notes:

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

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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

- 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

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|--------------------------------------|-------------------|------|
| • EXPLANATION TO PRODUCT DATA SHEETS | INFORMATION SHEET | 1411 |
| • CONVERSION TABLES                  | INFORMATION SHEET | 1410 |
| • SAFETY INDICATIONS                 | INFORMATION SHEET | 1430 |

# SIGMAFAST™ 210 HS

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