

PPG STEELGUARD™ 550

(STEELGUARD™ FM 550)

DESCRIPTION

One-component, thin-film, solvent-borne intumescent coating for fire protection of structural steelwork

PRINCIPAL CHARACTERISTICS

- Provides up to 150 minutes protection from cellulosic fires
- Off-site or on-site application
- Up to 1500 µm (60.0 mils) DFT in a single coat
- Suitable for C1 to C4 internal and external environments (ISO 12944); for dry internal (C1) environments no topcoat is required
- Weather resistant up to 12 months without topcoat provided the coating has been applied in accordance with PPG STEELGUARD Application guidelines and is not subject to running or pooling water, high humidity or immersion conditions
- Tested and assessed to international and national standards such as BS 476-20/21, UL 263, AS 1530:4, GB 14907 and certified with various national requirements

COLOR AND GLOSS LEVEL

- White
- Matt

BASIC DATA AT 20°C (68°F)

Data for product	
Number of components	One
Mass density	1.30 kg/l (10.85 lb/US gal)
Volume solids	68 ± 3%
VOC (Supplied)	Directive 2010/75/EC, SED: max. 293.0 g/kg UK PG 6/23(92) Appendix 3: max. 325.0 g/l (approx. 2.7 lb/US gal)
Recommended dry film thickness	200 - 1500 µm (8.0 - 60.0 mils) per coat
Theoretical spreading rate	0.97 m ² /l for 700 µm (39 ft ² /US gal for 28.0 mils)
Dry to touch	30 minutes
Overcoating Interval	Minimum: 6 hours Maximum: Unlimited
Shelf life	At least 18 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
- The required dry film thickness must be in accordance with the approval certification



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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Approved primer must be sound, dry and free from any contamination
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Substrate temperature and application conditions

- Substrate temperature during application and curing should be between 5°C (41°F) and 40°C (104°F)
 - Substrate temperature during application and curing should be at least 3°C (37°F) above dew point
 - Ambient temperature during application and curing should be between 5°C (41°F) and 40°C (104°F)
 - Relative humidity during application and curing should not exceed 85%
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INSTRUCTIONS FOR USE

- Stir thoroughly until homogeneous and free of lumps
 - Adding too much thinner results in reduced sag resistance and slower cure
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Airless spray

Recommended thinner

THINNER 21-06 (normally no thinner required)

Volume of thinner

0 – 5%

Nozzle angle

20° – 50°, depending on shape of steel parts

Nozzle orifice

Approx. 0.48 – 0.64 mm (0.019 – 0.025 in)

Nozzle pressure

20.0 MPa (approx. 200 bar; 2901 p.s.i.)

Notes:

- External fluid uptake pipe filter is recommended
 - All filters, including surge bottle and gun filters to be removed
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Brush/roller

- For small areas only (touch up and repair)

Recommended thinner

No thinner should be added

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Cleaning solvent

- THINNER 21-06

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
200 µm (8.0 mils)	3.40 m ² /l (136 ft ² /US gal)
400 µm (16.0 mils)	1.70 m ² /l (68 ft ² /US gal)
700 µm (28.0 mils)	0.97 m ² /l (39 ft ² /US gal)
1000 µm (40.0 mils)	0.68 m ² /l (27 ft ² /US gal)

Note:

- Maximum DFT when brushing: 300 µm (12.0 mils)

Overcoating interval for DFT up to 700 µm (28.0 mils)						
Overcoating with...	Interval	5°C (41°F)	10°C (50°F)	15°C (59°F)	20°C (68°F)	30°C (86°F)
itself	Minimum	12 hours	10 hours	8 hours	6 hours	4 hours
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited

Overcoating interval for DFT up to 1000 µm (40.0 mils)						
Overcoating with...	Interval	5°C (41°F)	10°C (50°F)	15°C (59°F)	20°C (68°F)	30°C (86°F)
STEELGUARD 2458	Minimum	4 hours	2 hours	1.5 hours	1 hours	45 minutes
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
other approved topcoats	Minimum	5 days	3 days	60 hours	48 hours	36 hours
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited



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Curing time for DFT up to 700 µm (28.0 mils)	
Substrate temperature	Dry to touch
5°C (41°F)	2 hours
10°C (50°F)	1.5 hours
15°C (59°F)	1 hour
20°C (68°F)	30 minutes
30°C (86°F)	20 minutes

Note:

- Drying times may vary considerably depending on ambient conditions, A/V m⁻¹ (Hp/A) of section and applied film thickness

SAFETY PRECAUTIONS

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

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

- Guide | PPG STEELGUARD | Application guidelines
- System sheet | PPG STEELGUARD | Approved primers
- System sheet | PPG STEELGUARD | Approved topcoats
- Information sheet | Explanation of product data sheets
- System sheet | PPG STEELGUARD | Systems and environments
- Information sheet | PPG Steelguard | FAQ's

WARRANTY

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.



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