

STEELGUARD™ 119 W

DESCRIPTION

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

PRINCIPAL CHARACTERISTICS

- Provides up to 180 minutes protection from cellulosic fires
- Free of halogenated flame retardants and borate compounds
- On-site application
- Up to 700 µm (28.0 mils) DFT in a single coat
- Suitable for C1, C2 and C3 internal environments (ISO 12944) ; for dry internal (C1) environments no topcoat is required

COLOR AND GLOSS LEVEL

- White
- Matt

BASIC DATA AT 20°C (68°F)

Data for product	
Number of components	One
Mass density	1.47 kg/l (12.27 lb/US gal)
Volume solids	68 ± 2%
VOC (Supplied)	ASTM D 6886: less than 50 g/L
Recommended dry film thickness	200 - 700 µm (8.0 - 28.0 mils) per coat
Theoretical spreading rate	0.97 m ² /l for 700 µm (40 ft ² /US gal for 28.0 mils)
Dry to touch	2 hours
Overcoating Interval	Minimum: 16 hours Maximum: Unlimited
Shelf life	At least 12 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
- Materials should be stored in dry conditions, out of direct sunlight and at temperature between 10°C (50°F) and 30°C (86°F). Shelf life may be reduced by storage at low temperatures, material must not be allowed to freeze



STEELGUARD™ 119 W

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 10°C (50°F) and 40°C (104°F)
- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point
- Ambient temperature during application and curing should be between 10°C (50°F) and 40°C (104°F)
- Relative humidity during application and curing should not exceed 80%

Note:

- Over application will extend drying/curing times. Care should be taken in areas such as flange/web interfaces as excessive film build can result in small hairline cracks. This cracking will not affect the fire performance of the material.
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INSTRUCTIONS FOR USE

- Stir thoroughly until homogeneous and free of lumps
 - Adding too much water results in reduced sag resistance and slower cure
 - Must be protected from freezing at all times during storage and/or transport
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Airless spray

Recommended thinner

Tap water (normally no thinner required)

Volume of thinner

0 - 5%

Nozzle angle

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

Nozzle orifice

Approx. 0.43 – 0.53 mm (0.017 – 0.021 in)

Nozzle pressure

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

Notes:

- All filters, including surge bottle and gun filters to be removed
 - External fluid uptake pipe filter is recommended
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STEELGUARD™ 119 W

Brush/roller

- For small areas only (touch up and repair)

Recommended thinner

No thinner should be added

Cleaning solvent

- Tap water

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
200 µm (8.0 mils)	3.40 m ² /l (139 ft ² /US gal)
400 µm (16.0 mils)	1.70 m ² /l (69 ft ² /US gal)
500 µm (20.0 mils)	1.36 m ² /l (55 ft ² /US gal)
700 µm (28.0 mils)	0.97 m ² /l (40 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	10°C (50°F)	15°C (59°F)	20°C (68°F)	30°C (86°F)
itself	Minimum	24 hours	20 hours	16 hours	12 hours
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited
approved topcoats	Minimum	24 hours	20 hours	18 hours	14 hours
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited

Note:

- Above data is subject to sufficient airflow and ventilation



STEELGUARD™ 119 W

Curing time for DFT up to 700 µm (28.0 mils)	
Substrate temperature	Dry to touch
10°C (50°F)	4 hours
15°C (59°F)	3 hours
20°C (68°F)	2 hours
30°C (86°F)	1 hours

Note:

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

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

- 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

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