

# STEELGUARD™ 701

## DESCRIPTION

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

## PRINCIPAL CHARACTERISTICS

- Provides 120 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 INFORMATION SHEET 1222 and is not subject to running or pooling water, high humidity or immersion conditions
- Tested and assessed to EN 13381-8 and BS 476-20/21
- CE marked product, ETA 14/0115
- Assessed to ETAG 018-2 for all durability classifications

## COLOR AND GLOSS LEVEL

- White
- Matt

## BASIC DATA AT 20°C (68°F)

Data for product	
Number of components	One
Mass density	1.34 kg/l (11.18 lb/US gal)
Volume solids	75 ± 3%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 257.0 g/kg UK PG 6/23(92) Appendix 3: max. 330.0 g/l (approx. 2.8 lb/US gal) EUR Directive: 2004/42/IIA(i)(500) 369 g/l
Recommended dry film thickness	200 - 1500 µm (8.0 - 60.0 mils) per coat
Theoretical spreading rate	1.07 m <sup>2</sup> /l for 700 µm (43 ft <sup>2</sup> /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



# STEELGUARD™ 701

## RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Approved primer must be sound, dry and free from any contamination
- 

### 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 (5°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%
- 

## INSTRUCTIONS FOR USE

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

### 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:

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

### Brush/roller

- For small areas only (touch up and repair)

#### **Recommended thinner**

No thinner should be added

---

### Cleaning solvent

THINNER 21-06

---



# STEELGUARD™ 701

## ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
200 µm (8.0 mils)	3.75 m <sup>2</sup> /l (150 ft <sup>2</sup> /US gal)
400 µm (16.0 mils)	1.88 m <sup>2</sup> /l (75 ft <sup>2</sup> /US gal)
700 µm (28.0 mils)	1.07 m <sup>2</sup> /l (43 ft <sup>2</sup> /US gal)
1000 µm (40.0 mils)	0.75 m <sup>2</sup> /l (30 ft <sup>2</sup> /US gal)
1500 µm (60.0 mils)	0.50 m <sup>2</sup> /l (20 ft <sup>2</sup> /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 hour	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

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<sup>2</sup> (Hp/A) of section and applied film thickness

## 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



# STEELGUARD™ 701

## REFERENCES

• STEELGUARD™ APPLICATION GUIDELINES	INFORMATION SHEET	1222
• STEELGUARD™ QUALIFIED PRIMERS	INFORMATION SHEET	1224
• STEELGUARD™ QUALIFIED TOPCOATS	INFORMATION SHEET	1226
• CONVERSION TABLES	INFORMATION SHEET	1410
• EXPLANATION TO PRODUCT DATA SHEETS	INFORMATION SHEET	1411
• SAFETY INDICATIONS	INFORMATION SHEET	1430
• SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD – TOXIC HAZARD	INFORMATION SHEET	1431
• SAFE WORKING IN CONFINED SPACES	INFORMATION SHEET	1433
• DIRECTIVES FOR VENTILATION PRACTICE	INFORMATION SHEET	1434
• CLEANING OF STEEL AND REMOVAL OF RUST	INFORMATION SHEET	1490
• SPECIFICATION FOR MINERAL ABRASIVES	INFORMATION SHEET	1491
• RELATIVE HUMIDITY – SUBSTRATE TEMPERATURE – AIR TEMPERATURE	INFORMATION SHEET	1650

## 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.

## LIMITATIONS OF LIABILITY

IN NO EVENT WILL PPG BE LIABLE UNDER ANY THEORY OF RECOVERY (WHETHER BASED ON NEGLIGENCE OF ANY KIND, STRICT LIABILITY OR TORT) FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO, ARISING FROM, OR RESULTING FROM ANY USE MADE OF THE PRODUCT. The information in this sheet is intended for guidance only and is based upon laboratory tests that PPG believes to be reliable. PPG may modify the information contained herein at any time as a result of practical experience and continuous product development. All recommendations or suggestions relating to the use of the PPG product, whether in technical documentation, or in response to a specific inquiry, or otherwise, are based on data, which to the best of PPG's knowledge, is reliable. The product and related information is designed for users having the requisite knowledge and industrial skills in the industry and it is the end-user's responsibility to determine the suitability of the product for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. PPG has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Therefore, PPG does not accept any liability arising from any loss, injury or damage resulting from such use or the contents of this information (unless there are written agreements stating otherwise). Variations in the application environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results. This sheet supersedes all previous versions and it is the Buyer's responsibility to ensure that this information is current prior to using the product. Current sheets for all PPG Protective & Marine Coatings Products are maintained at [www.ppgpmc.com](http://www.ppgpmc.com). The English text of this sheet shall prevail over any translation thereof.

The PPG logo, and all other PPG marks are property of the PPG group of companies. All other third-party marks are property of their respective owners.

