

# PASSIVE FIRE PROTECTION

## PROTECTION OF STEEL FROM CELLULOSIC FIRES

### STEELGUARD 701

4 pages

May 2014  
Revision of May 2013

<b>Description</b>	one component thin-film solvent borne intumescent coating for fire protection of structural steelwork
<b>PRINCIPAL CHARACTERISTICS</b>	<ul style="list-style-type: none"> <li>– provides up to 90 minutes protection from cellulosic fires</li> <li>– off-site or on-site application</li> <li>– up to 1500 µm dft in a single coat</li> <li>– suitable for C1 to C4 internal and external environments (ISO 12944); for dry internal (C1) environments no topcoat is required</li> <li>– 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, hot high humidity or immersion</li> <li>– tested and assessed to EN 13381-8, BS 476-20/21 and Factory Mutual Class number 4970</li> </ul>
<b>COLOURS AND GLOSS</b>	white – matt
<b>BASIC DATA AT 20°C</b>	(1 g/cm <sup>3</sup> = 8.35 lb/US gal; 1 m <sup>2</sup> /l = 40.7 ft <sup>2</sup> /US gal)
Mass density	1.34 g/cm <sup>3</sup>
Volume solids	75 ± 3%
VOC (Supplied)	max. 257 g/kg (Directive 1999/13/EC, SED) max. 330 g/l (UK PG 6/23(92) Appendix 3)
Recommended dry film thickness	normally 200 - 1500 µm applied in one coat note: the required dry film thickness must be in accordance with the approval certification
Theoretical spreading rate	1.07 m <sup>2</sup> /l for 700 µm *
Touch dry after	30 minutes *
Overcoating interval	min. 6 hours with itself * min. 48 hours with suitable topcoat * max. unlimited *
Shelf life (cool and dry place)	at least 18 months * see Information Sheet 1222
<b>RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES</b>	<ul style="list-style-type: none"> <li>– approved primer, dry, sound and free from contamination</li> <li>– substrate temperature should be at least 3°C above dew point during application and drying</li> <li>– should not be stored and applied under 5°C and above 40°C</li> <li>– relative humidity during application must be lower than 85%</li> </ul>
<b>INSTRUCTIONS FOR USE</b>	<ul style="list-style-type: none"> <li>– stir thoroughly till homogeneous and free of lumps</li> <li>– too much solvent results in reduced sag resistance and longer drying times</li> </ul>

# PASSIVE FIRE PROTECTION

## PROTECTION OF STEEL FROM CELLULOSIC FIRES

### STEELGUARD 701

May 2014

**AIRLESS SPRAY**

Recommended thinner

Nozzle angle

Nozzle orifice

Nozzle pressure

normally not required, but up to 5% Thinner 21-06 may be used

20 - 50°, depending on shape of steel parts

approx. 0.48 - 0.53 mm (= 0.019 - 0.025 in)

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

note a 30 mesh / 500 µm internal filter is recommended

**BRUSH/ROLLER**

Recommended thinner

for small areas only (touch up and repair)

no thinner should be added

**CLEANING SOLVENT**

Thinner 21-06

**ADDITIONAL DATA****Film thickness and spreading rate**

theoretical spreading rate m <sup>2</sup> /l	3.75	1.88	1.07	0.75	0.50
dft in µm	200	400	700	1000	1500

Maximum dft when brushing:

300 µm

**Overcoating table for Steelguard 701 for dft up to 700 µm**

with itself

substrate temperature	5°C	10°C	15°C	20°C	30°C
minimum interval	12 hours	10 hours	8 hours	6 hours	4 hours
maximum interval	unlimited	unlimited	unlimited	unlimited	unlimited

**Overcoating table for Steelguard 701 for dft up to 1000 µm**

with Steelguard 2458

substrate temperature	5°C	10°C	15°C	20°C	30°C
minimum interval	4 hours	2 hours	90 min.	60 min.	45 min.
maximum interval	unlimited	unlimited	unlimited	unlimited	unlimited

**Overcoating table for Steelguard 701 for dft up to 1000 µm**

with other approved top coats

substrate temperature	5°C	10°C	15°C	20°C	30°C
minimum interval	120 hours	72 hours	60 hours	48 hours	36 hours
maximum interval	unlimited	unlimited	unlimited	unlimited	unlimited

# PASSIVE FIRE PROTECTION

## PROTECTION OF STEEL FROM CELLULOSIC FIRES

### STEELGUARD 701

May 2014

**Curing****Drying table for dft up to 700 µm**

substrate temperature	touch dry
5°C	120 min.
10°C	90 min.
15°C	60 min.
20°C	30 min.
30°C	20 min.

drying times may vary considerable depending on ambient conditions,  $A/V \text{ m}^{-1}$  (Hp/A) of section and applied film thickness

**REFERENCES**

Conversion tables	see information sheet 1410
Explanation to product data sheets	see information sheet 1411
Safety indications	see information sheet 1430
Safety in confined spaces and health safety	see information sheet 1431
Explosion hazard - toxic hazard	
Cleaning of steel and removal of rust	see information sheet 1490
Specification for mineral abrasives	see information sheet 1491
Relative humidity - substrate temperature - air temperature	see information sheet 1650
STEELGUARD Application Guidelines	see Information Sheet 1222
STEELGUARD Qualified Primers	see Information Sheet 1224
STEELGUARD Qualified Top Coats	see information Sheet 1226

**SAFETY PRECAUTIONS**

- for paint and recommended thinners see safety 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 vapour as well as contact between the wet paint and exposed skin or eyes

# PASSIVE FIRE PROTECTION

## PROTECTION OF STEEL FROM CELLULOSIC FIRES

### STEELGUARD 701

May 2014

#### 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.

PDS	7581
white	3000AM2200
SAP code:	346410