

PASSIVE FIRE PROTECTION

PROTECTION OF STEEL FROM CELLULOSIC FIRES

STEELGUARD 801

4 pages

May 2014
Revision of May 2013

Description	one component thin-film solvent borne intumescent coating for fire protection of structural steelwork
PRINCIPAL CHARACTERISTICS	<ul style="list-style-type: none"> – provides up to 90 minutes protection from cellulosic fires – fast drying, providing short handling times – off-site or on-site application – up to 1000 µm 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, hot high humidity or immersion – tested and assessed to EN 13381-8, BS 476-20/21 and Factory Mutual Class number 4970
COLOURS AND GLOSS	white – matt
BASIC DATA AT 20°C	(1 g/cm ³ = 8.35 lb/US gal; 1 m ² /l = 40.7 ft ² /US gal)
Mass density	1.34 g/cm ³
Volume solids	75 ± 3%
VOC (Supplied)	max. 255 g/kg (Directive 1999/13/EC, SED) max. 327 g/l (UK PG 6/23(92) Appendix 3)
Recommended dry film thickness	normally 200 - 1000 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 ² /l for 700 µm *
Touch dry after	20 minutes *
Overcoating interval	min. 4 hours with itself * min. 24 hours with suitable topcoat * max. unlimited *
Shelf life (cool and dry place)	at least 18 months * see Information Sheet 1222
RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES	<ul style="list-style-type: none"> – approved primer, dry, sound and free from contamination – substrate temperature should be at least 3°C above dew point during application and drying – should not be stored and applied under 5°C and above 40°C – relative humidity during application must be lower than 85%
INSTRUCTIONS FOR USE	<ul style="list-style-type: none"> – stir thoroughly till homogeneous and free of lumps – too much solvent results in reduced sag resistance and longer drying times

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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 ² /l	3.75	1.88	1.50	1.07	0.75
dft in µm	200	400	500	700	1000

Maximum dft when brushing:

300 µm

Overcoating table for Steelguard 801 for dft up to 700 µm

with itself

substrate temperature	5°C	10°C	15°C	20°C	30°C
minimum interval	10 hours	8 hours	6 hours	4 hours	3 hours
maximum interval	unlimited	unlimited	unlimited	unlimited	unlimited

Overcoating table for Steelguard 801 for dft up to 1000 µm

with Steelguard 2458

substrate temperature	5°C	10°C	15°C	20°C	30°C
minimum interval	2 hours	1.5 hour	1 hour	30 min.	20 min.
maximum interval	unlimited	unlimited	unlimited	unlimited	unlimited

Overcoating table for Steelguard 801 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	72 hours	60 hours	48 hours	24 hours	16 hours
maximum interval	unlimited	unlimited	unlimited	unlimited	unlimited

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

substrate temperature	touch dry
5°C	60 min.
10°C	45 min.
15°C	30 min.
20°C	20 min.
30°C	10 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
explosion hazard- toxic hazard	see information sheet 1431
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

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