

SIGMA FIREBARR 100 INTERIOR

3 pages

January 2011
Revision of September 2005

DESCRIPTION	one component thin-film intumescent coating for fire protection of structural steelwork
PRINCIPAL CHARACTERISTICS	<ul style="list-style-type: none">– for steelwork located in indoor situations, (dry climate) i.e. not exposed to weathering conditions– meets international standards– provides fire protection from cellulosic fires from 30 minutes to 2 hours– tested according to well recognised standards such as BS, NF, DIN and certified by DIBt, CtiCM, WRFC and other authorities
COLOURS AND GLOSS	white - flat
BASIC DATA AT 20°C	(1 g/cm ³ = 8.25 lb/US gal; 1 m ² /l = 40.7 ft ² /US gal)
Mass density	1.29 g/cm ³
Volume solids	67 ± 2% *
VOC (supplied)	max. 302 g/kg (Directive 1999/13/EC, SED) max. 390 g/l (approx. 3.3 lb/gal)
Recommended dry film thickness	200 - 700 µm per coat note: depending on section factor and time of fire protection, more than one coat may be required *
Theoretical spreading rate	3.35 m ² /l for 200 µm, 0.96 m ² /l for 700 µm 2.60 m ² /kg for 200 µm, 0.75 m ² /kg for 700 µm
Touch dry after	8 hours at 700 µm
Overcoating interval	min. 24 hours with itself min. 48 hours with suitable topcoat * max. 12 months
Shelf life (cool and dry place)	at least 12 months
Flash point	above 26°C * see additional data
RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES	<ul style="list-style-type: none">– a compatibility test on the existing anticorrosive primer/coatings with the fire protection system is recommended *– any damage (impact, corrosion etc.) should be repaired prior to coating– substrate temperature should be at least 3°C above dew point– during application the relative humidity should be 30 - 80%– not to be applied under +5°C and above +50°C
INSTRUCTIONS FOR USE	<ul style="list-style-type: none">– the product must be mixed by slow speed mechanical agitator till homogenous– all filters (incl. tip filter) and screens to be removed from spray equipment– diameter of hoses to be 3/8 inch

PASSIVE FIRE PROTECTION

Fire Protection of Steel From Cellulosic Fires

SIGMA FIREBARR 100 INTERIOR

January 2011

AIRLESS SPRAY

Recommended thinner when needed up to 5% Thinner 20-05 may be used
 Nozzle angle 20 - 50°, depending on shape of steel parts
 Nozzle orifice approx. 0.48 - 0.68 mm (= 0.019 - 0.027 in)
 Nozzle pressure 15 - 20 MPa (= approx. 150 - 200 bar; 2130 - 2800 p.s.i.)

BRUSH/ROLLER

Recommended thinner no thinner should be added
 multicoats have to be applied in order to obtain the required dft

CLEANING SOLVENT

Thinner 21-06

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

ADDITIONAL DATA

Note

recommended film thickness and paint consumption in relation to the massivity and required fire protection based on BS 476 Part 21

Theoretical spreading rate	Fire protection		30 min.	60 min.	90 min.	120 min.
Example	Theoretical consumption	g/m ²	470	770	2750	3800
	Theoretical consumption	l/m ²	0.37	0.60	2.17	3.00
	Wet film thickness	µm	370	600	2165	2985
	Dry film thickness	µm	250	400	1450	2000

- dry film thickness refers to intumescent coating only
- for the porous nature of the intumescent coating the consumption can not be calculated by using the figures for volume solids
- Approved primers see system sheet 3400

SIGMA FIREBARR 100 INTERIOR

January 2011

REFERENCES

Explanation to product data sheets	see information sheet 1411
Safety indications	see information sheet 1430
Safety in confined spaces and health safety	
Explosion hazard - toxic hazard	see information sheet 1431
Fire Protection Certificates	see information sheet 1897
Solvent borne intumescent coating systems	see system sheet 3400

LIMITATION OF LIABILITY

The information in this data sheet is based upon laboratory tests we believe to be accurate and is intended for guidance only. All recommendations or suggestions relating to the use of the Sigma Coatings products made by PPG Protective & Marine Coatings, whether in technical documentation, or in response to a specific enquiry, or otherwise, are based on data which to the best of our knowledge are reliable. The products and information are designed for users having the requisite knowledge and industrial skills and it is the end-user's responsibility to determine the suitability of the product for its intended use.

PPG Protective & Marine Coatings has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. PPG Protective & Marine Coatings does therefore not accept any liability arising from loss, injury or damage resulting from such use or the contents of this data sheet (unless there are written agreements stating otherwise).

The data contained herein are liable to modification as a result of practical experience and continuous product development.

This data sheet replaces and annuls all previous issues and it is therefore the user's responsibility to ensure that this sheet is current prior to using the product.

The English text of this document shall prevail over any translation thereof.

	PDS	7573
219251	white	7000002200