



# NEW

# S708

## 30 & 60 MINUTES FIRE PROTECTION

MOISTURE RESISTANT

waterborne intumescent coating

FOR SEMI-EXPOSED STRUCTURAL STEEL

WITH FULL EXTERNAL DURABILITY  
THROUGHOUT THE BUILDING PHASE

**Nulli-fire**<sup>®</sup>

INTUMESCENT FIRE PROTECTION WITHOUT COMPROMISE

**Nullifire S708** the eco-friendly alternative to solvent-based products. Offers faster, safer protection for internal and semi-exposed steelwork, even if fully exposed during building

# S708

## 30 & 60 MINUTES FIRE PROTECTION

### MOISTURE RESISTANT

waterborne intumescent coating  
FOR SEMI-EXPOSED STRUCTURAL STEEL



### SOLVENT-BASED NO LONGER REQUIRED

Unprotected structural steel is vulnerable to weather when fully exposed during construction. So, until now, external-rated solvent-based protection has been the necessary answer.

Solvent-based coatings tend to trap solvent during curing, and can remain soft and susceptible to damage. They may also emit solvent-volatiles for weeks after application.

This can cause irritation to the building occupiers, including other trades as construction continues. In less-well-ventilated areas, such emissions can represent a health hazard as well as threaten the environment.

### SAFER, FASTER, ECOLOGICAL ANSWER

This dilemma, and potential delay to construction, can now be avoided by using an enviro-responsible alternative to solvent-based systems. Nullifire's innovative S708 coating is water-based. During application and curing, it is low odour and solvent emission-free.

### PROTECTIVE BASECOAT FOR DECORATION

Most significantly, S708 quickly dries to a smooth robust, white finish that can be fully exposed to the environment for up to 6 months\* without a decorative top seal. So, during that period, it won't be a problem if the building has yet to be closed or made watertight.

It can be applied on or off-site. When used in C1 and C2 classification building environments it needs no protective top seal and so delivers an even faster and more economical system.

\*As with solvent-based coatings, pooling water from rainfall, condensation or other circumstances must be avoided at all times.

### VOC COMPARISON

Volatile organic compound

**Traditional solvent-based coating:**  
**over 200 g/litre**

**S708 water-based coating:**  
**less than 20 g/litre**

## S708 COATING

### Fully Tested and Approved

- BS 476:Part 20/21:1987, in line with the BCF industry guidance document for 30 and 60 minutes
- Durability tested in accordance with the forthcoming requirements for CE marking (ETAG018 Part 2 2006) for internal, semi-exposed and external environments

- Surface spread of flame and propagation tested to BS 476: Parts 6/7, Class O
- Smoke and Toxicity tested to EN 13823 (SBI) and IMO smoke/toxicity

### Hi-Solids Content

- For thinner film and faster application

### Hi-Build Technology

- For single coat application, providing exceptional results faster

### Compatibility

- With standard S707 range of coatings

		<b>S708</b> Waterborne Intumescent Basecoat
<b>Properties</b>	<b>Area of Use</b>	Internal/Semi-exposed
	<b>S.G</b>	1.38
	<b>Volume Solids</b>	70% ±2%
	<b>Flash Point</b>	N/A
	<b>Colour</b>	White
<b>Technical</b>	<b>Preparation</b>	Onto clean dry compatible primer
	<b>WFT/Coat µm</b>	Brush: <1000 Spray: <1600
	<b>DFT/Coat µm</b>	Brush: <700 Spray: <1120
	<b>Drying Time</b>	24 hours between coats at >10°C
	<b>Over Coating</b>	Minimum 24 hours at >10°C before top seal application
	<b>Fire Performance</b>	30 and 60 minutes
	<b>Steel Sections</b>	Universal beams and columns, cellular beams
<b>Certification</b>		FIRE BS 476:Parts 20/21, BS 476:Parts 6/7 Class 0, EN13823 (SBI) and IMO smoke/toxicity
		<b>DURABILITY</b> ETAG018 Part 2 2006
<b>Top Seal Requirement</b>	<b>Internal Environments, CI &amp; C2</b>	No top seal required TS816WAC for decorative finish optional
	<b>Permanently Semi-exposed Environments</b>	No top seal required TS815SAC for decorative finish optional
	<b>Construction Phase Durability: Up to six months fully-exposed</b>	No top seal required TS815SAC or TS818WPU for decorative finish optional
	<b>Greater than six months fully-exposed</b>	Consult Nullfire Technical Desk
<b>General</b>	<b>Application Method</b>	Airless spray, short pile roller and brush
	<b>Container Size</b>	25kg Drum

## S708 SYSTEM

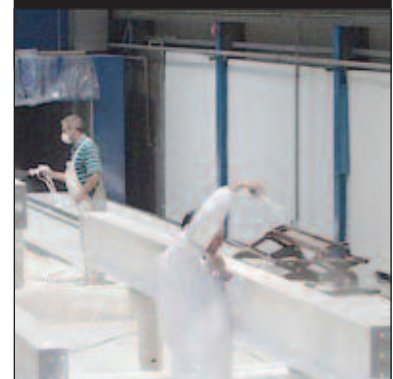
30 & 60 minutes fire protection in a single coat

### On-site benefits

- Fast cure
- Thin film
- Less disruption to other trades
- No special storage requirements
- Eases the strain of construction on the environment
- Low odour
- Very low VOC content
- Reduced Health & Safety risks to other trades/general public
- Environmentally friendly
- No solvent entrapment or prolonged solvent odour
- Low waste cost
- Easy clean down of equipment

### Durability

- When fully cured, may be exposed to weathering for up to 6 months\* without a top seal
- No protective top seal required for C1 and C2 classification buildings
- Smooth hard finish, unlike traditional solvent-based systems, which tend to remain soft and vulnerable to damage



## 5708 30 Minutes Fire Protection

Hp/A	3-Sided Universal Beams			4-Sided Universal Beams			4-Sided Universal Columns		
	WFT (mm)	DFT (mm)	g/m <sup>2</sup>	WFT (mm)	DFT (mm)	g/m <sup>2</sup>	WFT (mm)	DFT (mm)	g/m <sup>2</sup>
40	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
45	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
50	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
55	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
60	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
65	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
70	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
75	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
80	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
85	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
90	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
95	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
100	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
105	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
110	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
115	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
120	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
125	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
130	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
135	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
140	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
145	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
150	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
155	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
160	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
165	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
170	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
175	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
180	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
185	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
190	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
195	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
200	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
205	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
210	0.29	0.20	394	0.27	0.19	375	0.27	0.19	375
215	0.29	0.20	394	0.28	0.20	385	0.28	0.20	385
220	0.29	0.20	401	0.29	0.20	400	0.29	0.20	400
225	0.30	0.21	410	0.30	0.21	415	0.30	0.21	415
230	0.30	0.21	419	0.31	0.22	430	0.31	0.22	430
235	0.31	0.22	427	0.32	0.23	445	0.32	0.23	445
240	0.32	0.22	436	0.33	0.23	459	0.33	0.23	459
245	0.32	0.23	445	0.34	0.24	474	0.34	0.24	474
250	0.33	0.23	453	0.35	0.25	489	0.35	0.25	489
255	0.33	0.23	462	0.37	0.26	504	0.37	0.26	504
260	0.34	0.24	471	0.38	0.26	519	0.38	0.26	519
265	0.35	0.24	479	0.39	0.27	534	0.39	0.27	534
270	0.35	0.25	488	0.40	0.28	548	0.40	0.28	548
275	0.36	0.25	497	0.41	0.29	563	0.41	0.29	563
280	0.37	0.26	505	0.42	0.29	578	0.42	0.29	578
285	0.37	0.26	514	0.43	0.30	593	0.43	0.30	593
290	0.38	0.27	523	0.44	0.31	608	0.44	0.31	608
295	0.39	0.27	531	0.45	0.32	623	0.45	0.32	623
300	0.39	0.27	540	0.46	0.32	637	0.46	0.32	637
305	0.40	0.28	549	0.47	0.33	652	0.47	0.33	652
310	0.40	0.28	558	0.48	0.34	667	0.48	0.34	667
315	0.41	0.29	566	0.49	0.35	682	0.49	0.35	682
320	0.42	0.29	575	0.50	0.35	697	0.50	0.35	697

## 5708 60 Minutes Fire Protection

Hp/A	3-Sided Universal Beams			4-Sided Universal Beams			4-Sided Universal Columns		
	WFT (mm)	DFT (mm)	g/m <sup>2</sup>	WFT (mm)	DFT (mm)	g/m <sup>2</sup>	WFT (mm)	DFT (mm)	g/m <sup>2</sup>
40	0.29	0.20	394	0.33	0.23	453	0.33	0.23	453
45	0.29	0.20	394	0.35	0.24	483	0.35	0.24	483
50	0.29	0.20	394	0.37	0.26	512	0.37	0.26	512
55	0.29	0.20	397	0.39	0.27	541	0.39	0.27	541
60	0.30	0.21	419	0.41	0.29	570	0.41	0.29	570
65	0.32	0.22	440	0.43	0.30	599	0.43	0.30	599
70	0.33	0.23	462	0.46	0.32	628	0.46	0.32	628
75	0.35	0.25	484	0.48	0.33	657	0.48	0.33	657
80	0.37	0.26	505	0.50	0.35	686	0.50	0.35	686
85	0.38	0.27	527	0.52	0.36	715	0.52	0.36	715
90	0.40	0.28	549	0.54	0.38	744	0.54	0.38	744
95	0.41	0.29	571	0.56	0.39	774	0.56	0.39	774
100	0.43	0.30	592	0.58	0.41	803	0.58	0.41	803
105	0.44	0.31	614	0.60	0.42	832	0.60	0.42	832
110	0.46	0.32	636	0.62	0.44	861	0.62	0.44	861
115	0.48	0.33	657	0.64	0.45	890	0.64	0.45	890
120	0.49	0.34	679	0.67	0.47	919	0.67	0.47	919
125	0.51	0.36	701	0.69	0.48	948	0.69	0.48	948
130	0.52	0.37	722	0.71	0.50	977	0.71	0.50	977
135	0.54	0.38	744	0.73	0.51	1006	0.73	0.51	1006
140	0.55	0.39	766	0.75	0.53	1035	0.75	0.53	1035
145	0.57	0.40	787	0.77	0.54	1065	0.77	0.54	1065
150	0.59	0.41	809	0.79	0.55	1087	0.79	0.55	1087
155	0.60	0.42	831	0.80	0.56	1109	0.80	0.56	1109
160	0.62	0.43	852	0.82	0.57	1131	0.82	0.57	1131
165	0.63	0.44	874	0.84	0.59	1154	0.84	0.59	1154
170	0.65	0.46	899	0.85	0.60	1176	0.85	0.60	1176
175	0.67	0.47	929	0.87	0.61	1198	0.87	0.61	1198
180	0.69	0.49	958	0.88	0.62	1220	0.88	0.62	1220
185	0.72	0.50	988	0.90	0.63	1243	0.90	0.63	1243
190	0.74	0.52	1017	0.92	0.64	1265	0.92	0.64	1265
195	0.76	0.53	1047	0.93	0.65	1287	0.93	0.65	1287
200	0.78	0.55	1076	0.95	0.66	1309	0.95	0.66	1309
205	0.80	0.56	1106	0.96	0.68	1332	0.96	0.68	1332
210	0.82	0.57	1131	0.98	0.69	1354	0.98	0.69	1354
215	0.83	0.58	1149	1.00	0.70	1376	1.00	0.70	1376
220	0.85	0.59	1167	1.01	0.71	1398	1.01	0.71	1398
225	0.86	0.60	1184	1.03	0.72	1421	1.03	0.72	1421
230	0.87	0.61	1202	1.05	0.73	1443	1.05	0.73	1443
235	0.88	0.62	1220	1.06	0.74	1465	1.06	0.74	1465
240	0.90	0.63	1238	1.10	0.77	1513	1.10	0.77	1513
245	0.91	0.64	1256	1.16	0.81	1599	1.16	0.81	1599
250	0.92	0.65	1274	1.22	0.86	1686	1.22	0.86	1686
255	0.94	0.66	1291	1.28	0.90	1772	1.28	0.90	1772
260	0.95	0.66	1309	1.35	0.94	1858	1.35	0.94	1858
265	0.96	0.67	1327				1.41	0.99	1944
270	0.97	0.68	1345				1.47	1.03	2031
275	0.99	0.69	1363				1.53	1.07	2117
280	1.00	0.70	1381				1.60	1.12	2203
285	1.01	0.71	1398				1.66	1.16	2289
290	1.03	0.72	1416				1.72	1.21	2376
295	1.04	0.73	1434						
300	1.05	0.74	1452						
305	1.07	0.75	1470						
310	1.08	0.75	1488						
315	1.09	0.76	1505						
320	1.10	0.77	1523						

Refer to Nullfire

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## VERSATILE SYSTEM WITH PROVEN PERFORMANCE

Nullfire has pioneered the use of intumescent coatings for the decorative fire protection of structural steelwork for a generation.

S708 has been developed to replace solvent-based products on and off-site. It is an advanced water-based basecoat that provides a durable and attractive white surface, similar to a paint finish. In a fire, the S708 film expands to many times its original film thickness. This provides an insulating foam-like coating or 'char' to protect steelwork against heat build-up and the effects of fire.

### Primer

**To protect the steel against corrosion and prepare the surface.** This provides a key for the application of the basecoat.

### Basecoat

**The S708 intumescent coating itself, applied on-site to a measured thickness to provide the specified level of fire protection.**

### Top Seal

**A hard decorative finish to seal in the basecoat and provide an attractive, high quality appearance.**

### Application

Nullfire Primer, S708 Basecoat, and Top Seal are applied by fully trained specialist approved contractors, ensuring a high quality service and finish.

## CHANGING INTUMESCENT COATINGS FOR GOOD

**Nullfire takes its responsibility for product innovation beyond the protection of the steel structure.**

It strives to minimise the harm that traditional fire protection systems may cause the user and the environment.

To this end Nullfire's range of water-based S707 was developed to replace the need for solvent-based products used for internal steel protection.

Its success was a major step in overcoming perceptions that water-based coatings were less durable than solvent-based alternatives.

**Nullfire's advance in technology continues with the introduction of the NEW S708.**

Nullfire S708 has answered the industry need for a solvent-free intumescent fire protection system for semi-exposed steel.

In addition, S708 provides protection for fully-exposed steel for up to 6 months\* during the construction phase, whilst reducing Health and Safety and environmental impact.

When once only solvent-based products would be used, S708 is now the natural, safe, environmentally friendly replacement.

**S708 is the next generation of intumescent coatings, having passed rigorous durability testing.**

Anticipating future legislation, Nullfire have included the forthcoming CE markings (ETAG018 Part 2 2006) for internal, semi-exposed and external environments.

S708 is yet another advance in the technological superiority of intumescent water-based coatings. Delivering all the benefits of solvent-based coatings but without the solvent.

## COMPREHENSIVE TECHNICAL SUPPORT

Nullfire S708 is backed by full technical information, including

- Loading tables
- Technical Data Sheets
- Fire engineering support
- Materials estimating program
- Application and product training

Expert support and assistance is available for every stage of a project, from product selection and specification to installation and verification.

## CONTRACTS SUPPORT

Nullfire operates a unique team of fully trained contract support engineers.

They are available to assist in project management and schedule planning to meet project time scales. They also provide on-site or off-site inspection\* to ensure correct application of all Nullfire products.

For information or assistance, contact Nullfire today:

**Tel:** 024 7685 5000

**Fax:** 024 7646 9547

**Email:** [protect@nullfire.com](mailto:protect@nullfire.com)



**\*NOTE:** Applicable to areas accessible for inspection only. Those parts of the structure to which access cannot be gained, for example areas made inaccessible by subsequent construction work, are outside the scope of Nullfire inspection and verification.

**Nullifire®**

## SPECIALIST EXPERTISE YOU CAN RELY ON

Nullifire has been at the forefront of the development of intumescent fire protection systems for over 25 years. Totally focused on fire protection, the company has worked with the world's leading architects, providing fire protection solutions for many of the major buildings of our time.

Nullifire offers high performance, fire protective solutions for:

### Steelwork

Decorative, durable off-site and on-site systems for interior and exterior steelwork

### Timber

Decorative system in matt or satin clear finish and a full range of RAL and BS 4800 colours

### Construction joints

Fire seals for joints, gaps and profiled metal sheeting

### Service penetrations

Lightweight, flexible barriers to maintain compartmentation

Call Nullifire Technical Services Department for full details

**Tel: 024 7685 5000**

**Fax: 024 7646 9547**

**Email: [protect@nullifire.com](mailto:protect@nullifire.com)**

# S708

## 30 & 60 MINUTES FIRE PROTECTION

MOISTURE RESISTANT

waterborne intumescent coating

FOR SEMI-EXPOSED STRUCTURAL STEEL

WITH 6-MONTH EXTERNAL  
RATING DURING CONSTRUCTION



All information in this brochure is provided in good faith by Nullifire Limited and is believed correct at the time of printing. Nullifire Limited reserve the right to change product specifications in line with their policy of continuing product development

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# Nullifire®

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Certificate No. FM1764  
ISO 9001:2000



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## INTUMESCENT FIRE PROTECTION WITHOUT COMPROMISE