

CI/SfB	Yu4	(K2)
CAW G12		
Uniclass JM61:L68116		

Product Information

Description

S707-60 HF Intumescent Basecoat is a white thin film intumescent coating for the fire protection of internal structural steelwork.

Usage / Purpose

S707-60 HF provides effective structural fire protection, for steelwork, from 30 minutes up to a 90 minute fire rating.

Finish

Can be applied to a smooth matt finish. A compatible top-seal can be applied if a decorative finish is required.

Colour

White

Packaging

Supplied in 25 kg drums

Environmental Considerations

Very low VOC. Contains no substances of very high concern.

Availability

Only available from Nullifire (see back of leaflet for address and telephone details).

Usage Guidelines

Surface Preparation & Priming

- S707-60 HF should be applied onto a clean, undamaged, dry and primed steel surface.
- Certain types of primers can cause char adhesion problems in a fire. In particular, thermoplastic primers must be avoided.
- Nullifire recommend and have tested PM015, PM019, PM020 and PM021 primers- see website for details.
- Nullifire have carried out compatibility testing on a wide range of primers and can be contacted on +44 (0) 24 7685 5000 for confirmation of compatibility with S707-60 HF.
- S707-60 HF should not be applied directly to galvanised surfaces or zinc rich primer
- The primer must be applied in accordance with the manufacturer's instructions.
- Nullifire should be consulted for technical advice when zinc rich

primers or the overcoating of existing paints are specified for use.

Application Conditions

- S707-60 HF is recommended for application and use on dry protected structural steel only.
- If the basecoat is allowed to get wet, it is likely to be damaged – blistering and wrinkling may occur.
- S707-60 HF should only be applied when the air and steel temperatures are above 5°C. Relative humidity should be below 80% for successful application. Steel surface temperature should be a minimum of 3°C above the dew point.
- Ensure the steel is dry and free from contact with rain or condensation during the application and drying of S707-60 HF.

Application Equipment

Airless spray equipment is recommended and should match these guidelines:

Operating Pressure: 2500- 3000psi (175 - 210 kg/cm²)

Tip Size: 19 – 21 thou

Fan Angle: 20° – 40°

Hose Diameter: 10 mm (3/8") (internal diameter)

Hose Length: Max. 60 metres, in-line filters should not normally be used.

Mixing

S707-60 HF is supplied ready for use and must not be thinned but should be thoroughly mechanically stirred prior to use.

Application

AIRLESS SPRAYING

- S707-60 HF may be applied up to a maximum wet film thickness (WFT) of 1.2 mm in a single spray coat comprising of several quick passes. Achieving maximum loadings will depend on site conditions.
- Build up thickness to achieve loading required in several quick passes. It may be possible to apply two coats of S707-60 HF in one day particularly if the atmospheric temperature is above 20°C and relative humidity below 70%. However, before doing this, ensure that the previously applied coat is dry, particularly in the web/flange junctions.

Nullifire

Smart Protection

S707

Intumescent Basecoat

Water-Based



Key Benefits Summary

- Water based intumescent coating suitable for internal use on structural steelwork engineered for 60 minute fire resistance
- Can provide 90 minute fire protection in some applications
- Market leading product with a long history of successful applications
- Compatible with a full range of Nullifire primers and top seals
- Very low VOC
- CE marked product
- SVHC free formula



S707

Intumescent Basecoat



BRUSH/ROLLER APPLICATION

- For brush application use a “laying on” technique to avoid heavy brush marking.
- Maximum wet film per coat when applied using a brush or roller is 1 mm. A short piled roller will produce a light textured finish.
- During application, measure the wet film thickness frequently with the WFT gauge provided to ensure the correct thickness is being applied.
- To use the gauge, insert the teeth into the wet basecoat. The last tooth to be coated indicates the wet film thickness achieved.
- In the event of over or under applications, adjustments to the loading rates of subsequent coats will be required.

Drying Times

Drying of S707-60 HF is dependent upon a number of factors including:

- Temperature
- Air movement
- Humidity
- Method of application
- Thickness of coating

High humidity and low air movement or low steel temperatures can result in condensation on the steelwork causing prolonged drying times and possibly poor basecoat adhesion.

Re-coat Times

Indications of re-coat or top sealing times taking into account loading areas and application methods are given below:

- Hours per application (0.3 mm wft) – Thin coat
- Hours per application (0.6 mm wft) – Medium coat
- Hours per application (1.2 mm wft) – Thick coat

		10°C		20°C		30°C	
R/H	Spray	Still Air	Air Flow	Still Air	Air Flow	Still Air	Air Flow
30%	Thin	4.50 h	2.25 h	3.75 h	1.50 h	2.25 h	1.50 h
	Medium	6.25 h	3.75 h	5.25 h	3.00 h	4.50 h	2.25 h
	Thick	9.00 h	4.50 h	6.00 h	3.75 h	6.00 h	3.00 h
50%	Thin	56.00 h	3.00 h	4.50 h	2.25 h	3.00 h	1.50 h
	Medium	9.00 h	4.50 h	6.25 h	3.75 h	6.00 h	3.00 h
	Thick	12.00 h	6.00 h	9.00 h	4.50 h	7.50 h	3.75 h
70%	Thin	11.25 h	6.00 h	9.00 h	4.50 h	6.00 h	3.00 h
	Medium	15.00 h	9.00 h	15.00 h	6.25 h	12.00 h	5.25 h
	Thick	18.00 h	12.00 h	18.00 h	9.00 h	15.00 h	6.00 h

- Brushing or rolling adds about 20% to drying time (compared to spraying).
- Drying times are doubled at 5°C or at over 75% relative humidity.
- Final drying time before topsealing is a minimum of 16 hours.
- These figures are based on constant conditions, fluctuations up or down will give variations to the drying time. If overnight condensation causes wetting a further full drying period should be allowed.

Application Advice

The following instructions are for on-site application only. For off-site application, refer to Nullifire. Ensure that:

- The primer is compatible with S707-60 HF and has been applied correctly.
- The over coating period for the primer has not been exceeded.
- The correct primer is used for galvanised steel.
- All damage to the primer has been repaired & re-primed.
- Site and weather conditions are within specification.
- S707-60 HF has been stored correctly.
- Surface is clean, dry and free from contamination.
- Correct spray equipment is available, if appropriate.
- Application instructions have been read prior to commencement of work.
- Ensure different basecoats are not applied on the same section of steel.
- Equipment should be clean and free from contaminants or dried material. Wet film gauges are available for use.

Cleaning

Spray equipment can be cleaned using water only.

Top Seal Requirements

Once DFT's have been achieved as specified, a top seal, TS134 (acrylic polyurethane), TS815 (modified acrylic) or TS816 (water-based acrylic) can be applied. Ensure the S707-60 HF is completely dry before applying top seal.

Maintenance & Repair

Damaged areas should be abraded back to a sound surface. The surface should then be clean and dry before re-applying. System S Filler may be used for repairing scratches and chips. Once repaired topseal should be re-applied. Refer to Nullifire System S Maintenance Instructions.



S707

Intumescent Basecoat



Specification

A tremco illbruck Representative will provide a specification for each project. tremco illbruck accepts no responsibility for defects arising from failure to follow the specification.

Health & Safety Precautions

Safety data sheet must be read and understood before use.

Technical Service

tremco illbruck has a team of experienced Technical Sales Representatives who provide assistance in the selection and specification of products. For more detailed information, service and advice, please call Customer Services on 01942 251400.

Guarantee / Warranty

tremco illbruck products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with tremco illbruck written instructions and (b) in any application recommended by tremco illbruck, but which is proved to be defective, will be replaced free of charge.

No liability can be accepted for the information provided in this leaflet although it is published in good faith and believed to be correct.

tremco illbruck Limited reserves the right to alter product specifications without prior notice, in line with Company policy of continuous development and improvement.

Technical Data

Property	Result
Composition	A very low VOC, multi-coat water, based formulation
Certification	BS476 Part 21: 1987 and EN13381 Part 8: 2013 CE marked product with European Technical Approval ETA-12/0355 according to CE1121-CPD-GA5012
Building Classification	C1, C2 and C3 environments
Properties (Typical Values)	
Specific Gravity	1.35 ±0.02
Volume Solids	72% ±2%
VOC	21 g/litre
Theoretical Coverage	700 g/m ² based on an applied @ 0.5 mm dry film thickness
Storage	Store in secure, dry warehouse conditions between +5°C and +35°C
Shelf Life	6 months when stored as recommended in original unopened container