

SC601

Intumescent Steel Coating - On-Site & Off-Site

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Description

SC601 is a single pack, solvent-based acrylic thin film intumescent steel coating for the protection of structural steelwork, optimised to provide 60 minutes fire resistance.



Features and Benefits

- Competitive loadings.
- Compatible with various primers and topcoats.
- Easy to apply.
- SC601 is suitable for on-site and off-site application.
- Optifire®+ unique traceability identifier.
- Certifire CF5767.

Usage Purpose

SC601 is optimised to provide 60 minutes fire resistance to 'I' section beams and columns, hollow columns and beams, as well as cellular beams, concrete filled hollows and solid steel tension rods. Limited 90 minute protection is also available. SC601 can be used on steel, cast iron and galvanised steel.

Packaging

25 kg drum

Available Colour

Off-white

Certificates & Approvals

Certifire CF5767
BS476 Part 20-22
Cellular Beams YB5
EN13381-6 Concrete Filled Hollow Tubes
EN13381-10 Solid Steel Tension Rods
(for other certification requirements, contact Nullifire)

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Technical Characteristics

Average Drying Times (DFT & Temp)	720 microns DFT @ 20°C	To Touch – 30 minutes To Recoat – 4 hours To Handle – variable depending on conditions These figures are given as guidance only. Other factors such as air movement, temperature and coating thickness must be considered.
Construction Phase		6 months with topcoat once fully dried (see Environmental Resistance section)
Specific Gravity		1.36 ±0.02 g/cm ³
Thickness	Recommended thickness per coat	DFT: 720 microns - maximum WFT: 1000 microns - maximum Higher thickness's may be possible, however they will impact the drying times. The thickness's above are recommended for optimum film build and drying balance. For required thickness, consult Loading Tables.
Solids Content	Volume Solids	72% ±3
Application Temperature		+5°C to +35°C, relative humidity <85% and a steel surface temperature at least 3°C above the dew point.
Service Temperature		+5°C to +35°C - at temperatures above 35°C, thermoplasticity may be observed
Environment / VOC		317 g/litre
Finish		Matt
Storage		Store in secure, dry warehouse conditions between 0°C and +35°C
Shelf Life		12 months when stored as recommended in original unopened container at 20°C
Application Instructions		Detailed application instructions are available for SC600, SC800 and SC900 series that must be consulted prior to commencing application. Please visit https://www.nullifire.com/en_GB/technical-zone/download-centre/

Environmental Resistance

C1, C2, C3 and C4 environments only. For full details, please consult Nullifire Specification Guidelines.

The construction phase environmental conditions may vary from those during the final building classifications.

The construction phase may include higher exposure to the environment than the final classification. Each product and specification should be considered for the resistance during this construction phase including the limitations and caveats.

During the drying phase, the intumescent must be protected from all forms of water including rain.

In all cases, prolonged water contact must be avoided, including condensation, standing water, heavy running water and fresh concrete run-off (including alkaline moisture). Exposure may lead to detrimental damage to the coating system.

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Application Conditions - Additional

Ensure adequate through ventilation during application

Application temperature range 5°C to + 35°C, relative humidity <85% and a steel surface temperature at least 3°C above the dew point.

Substrate Preparation

SC601 should only be used on substrates which have had all mill-scale removed and blasted to an average blast profile of 75 microns, with a minimum of 40 microns, and a cleanliness of Sa 2.5 must be achieved before application of recommended primer. All surfaces must be clean, dry and free from contamination before coating application.

Necessary Tools

Airless spray equipment is recommended and should match these guidelines:

Operating Pressure: Min 3100psi (218 kg/cm²)

Tip Size: 19 – 23 thou Fan Angle: 20° – 40°

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

Hose Length: Max. 30 metres.

Inline filters should not normally be used

Protective Equipment

USE IN WELL VENTILATED CONDITIONS and ensure all recommended protective equipment is worn during handling & use of this product. For full recommendation, refer to safety data sheet.

Mixing

Nullifire intumescent is supplied without the need to add thinners for application, and is not recommended. However, if necessary, xylene (FC150) may be added up to a maximum of 2%. Thinning may impact the ability of the coating to hold up at the recommended WFT.

SC601 should be mechanically stirred prior to use until homogeneous

Priming

For recommended primers, please consult Nullifire. Nullifire has carried out compatibility testing on various primers, but have no control over primer consistency from other manufacturers.

The primer system shall not exceed 150 microns DFT total, with an absolute maximum allowable in overlap areas only of 200 microns DFT. Primed steel surfaces that are visibly high in gloss must be abraded/sanded to a matt finish. The primer must be applied in accordance with the manufacturer's instructions. It is recommended as best practice that a small test patch or area be prepared with the intumescent before commencing the full intumescent coating application to ensure that there are no issues with compatibility, adhesion or drying, etc.

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Tool Cleaning

Fresh paint can be removed using xylene (FC150). Dried on paint may be removed using a paint scraper. Spray equipment must only be cleaned using xylene (FC150).

Topcoats

For recommended topcoats, please consult Nullifire.

Nullifire has carried out compatibility testing on various topcoats, but have no control over topcoat consistency from other manufacturers.

The type, DFT and number of layers of topcoat must be in accordance with the specification. Specifications will be driven by the Nullifire Specification Guidance or the appropriate product ETA.

The topcoat must be applied in accordance with the manufacturer's instructions.

It is recommended as best practice that a small test patch or area be prepared before commencing the full application to ensure that there are no issues with compatibility, adhesion or drying, etc.

Consumption Text

1,329 g/m² @ 720 µm DFT

Guarantee / Warranty

Tremco CPG UK Limited products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with Tremco CPG UK Limited written instructions and (b) in any application recommended by Tremco CPG UK Limited, 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 CPG UK Limited reserves the right to alter product specifications without prior notice, in line with Company policy of continuous development and improvement.

It is a requirement of the installer to ensure suitability and compatibility of all elements before installation commences and that compliance can be achieved as required.

Health And Safety Precautions

Safety data sheet must be read and understood before use. Flammable - keep away from open flames and other ignition sources.

Technical Service

Tremco CPG UK Limited 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.

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Specifications

An appropriate specification must be used for the protection of the full system in accordance with the environmental classification for the environment where the building is located. The environment during construction and transport should also be considered, if necessary, and the worst case used. Nullifire can assist with selecting an appropriate specification.