Technical Data Sheet

SC802

Intumescent Steel Coating - On-Site, Water Based

24-09-2025 / V 2

Description

SC802 Intumescent steel coating is a very low VOC, borate free, APEO free, water based, thin film intumescent coating for the protection of structural steelwork. SC802 contains no substances of very high concern.

Features and Benefits

- Water based intumescent coating suitable for internal use on structural steelwork for up to 60 minutes fire resistance.
- "Next generation" product - with greater efficiency on site.
- Compatible with a full range of Nullifire primers and Topcoats.
- Very low VOC.
- Optifire®+ unique traceability identifier.
- Certifire CF5420.

Usage Purpose

SC802 provides up to 60 minutes fire resistance to 'I' section beams, columns, hollow section columns and cellular beams. Limited 90-minute protection is also available. SC802 can be used on steel, cast iron and galvanised steel.

Available Colour

White

Shelf Life

9 months

Storage

Store in secure, dry warehouse conditions between +5°C and +35°C

Certificates & Approvals

Certifire CF5420
BS476 Part 20-22
Cellular Beams YB5
(for other certification requirements, contact Nullifire)

Technical Data Sheet

SC802

Intumescent Steel Coating - On-Site, Water Based

Technical Characteristics

Average Drying Times (DFT & Temp)	700 microns DFT @ 20°C	To Touch – 60 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		1.38 ±0.02 g/cm3
Thickness	Recommended thickness per coat	DFT: 700 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	70% ±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 +40°C
Environment / VOC		<16 g/litre
Finish		Matt
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/
Cleaning		Fresh paint can be removed using water immediately after use. Dried on paint may be removed using a paint scraper. Spray equipment must only be cleaned using water immediately after use.

Usage Guidelines

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 and C3 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.

Technical Data Sheet

SC802

Intumescent Steel Coating - On-Site, Water Based

Application Conditions - Additional

Nullifire SC802 is recommended for application and use on dry protected structural steel only.
If the steel coating is allowed to get wet, it is likely to be damaged – blistering and wrinkling may occur.
SC802 should only be applied when the air and steel temperatures are above 5°C. Relative humidity should be below 85%.
Steel surface temperature should be a minimum of 3°C above the dew point.
Ensure the substrate is dry and free from contact with rain or condensation during the application and drying of SC802.

Substrate Preparation

SC802 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: 2500 - 3000psi (175 - 210 kg/cm^2)
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

SC802 is supplied ready for use and must not be thinned and should not be mechanically stirred prior to use.

Tool Cleaning

Fresh paint can be removed using water immediately after use. Dried on paint may be removed using a paint scraper. Spray equipment must only be cleaned using water immediately after use.

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.

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.

Technical Data Sheet

SC802

Intumescent Steel Coating - On-Site, Water Based

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

1,371 g/m² @ 700µm 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.

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.

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.

Tremco CPG UK Limited
Coupland Road, Hindley Green
Wigan, WN2 4HT
United Kingdom
+44 (0)1942 251400
hello@tremcocpg.com