

Nullifire



Passive Fire Protection

Structural Steel and Concrete Fire Protection



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Intelligent Engineered Passive Fire Protection

For over 40 years, Nullifire has been a market leader in intumescent and fire stopping solutions, with one focus that has not and will not change: *“To protect people and buildings from fire”*.

Passive fire protection is highly complex but crucially important, especially as buildings become more sophisticated. At Nullifire, they understand the need to have confidence in fire protection, so they provide systems that perform when they are called upon.

With a unique team of technical experts, everything is focused on providing what the client needs at every stage of their project smart protection.

Nullifire is a brand of Tremco Construction Products Group; a global manufacturer and service provider of high performance building materials.

Nullifire intumescent coatings are distributed in Australia by Tremco CPG.

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This document is applicable to Tremco CPG Australia structural steel and concrete fire protection solutions for new construction and/or remedial purposes. Applicable areas may vary.

The information contained within this document should be read in accordance with the information listed on the relevant Product Data Sheet, Australian Standard and Application Manual.

All text contained in this document is provided as guidance by Tremco CPG Australia for developing the appropriate work section and relevant construction documents. Consult with Tremco CPG Australia for project specific advice and product suggestions.



1. Nullifire SC902 Fast Track Hybrid Intumescent Coating



2. Nullifire SC803 Water Based Intumescent Coating

It is recommended that Nullifire primers, intumescent coatings and top seals are applied by experienced specialists. Full details of our recognised contractors can be obtained by contacting the Technical Services Team. Tremco CPG has developed this fire protection product selection guide to enhance the specification and procurement of Tremco CPG systems. This document details Tremco CPG's recommended fire protection systems, for various project elements.



Nullifire SC902



Product Overview

Nullifire SC902 is a fast track on-site low VOC, single application, high build system, based on patented technology for hybrid on-site or factory steelwork up to 120 minutes fire rating.

Low VOC and no solvent entrapment or prolonged solvent odour once fully cured. Cetec VOC Content Test Certificate CV140407a to Green Building Council of Australia Green Star Office Design Specification V3 IEQ-13.

KEY BENEFITS

- Fast cure, early weather resistance, shower proof within 1 hour.
- Achieves external durability with an approved top seal.
- Cures below 0° and fully dry by the following day.
- High build potential with all ratings in one application.
- Fire rating up to 120 minutes assessed in accordance with AS1530.4-2014 and AS4100-2020

FACTORY OR SITE INTUMESCENT COATING APPLICATION

Nullifire SC902 Finish Standard Required	Location				Finish Required		
	Internal Steelwork Non-Visible FRL up to 120 minutes C1				To Be Confirmed by Client.		
	Product	Data Sheet No.	Dry Film Thickness (Microns)	FRL	Application Method	Spot/Full/Stripe Coat	Thinner Required
Primer Coat	Carboguard 635	Carboguard 635	75 Microns Dry Film Thickness	N/A	Airless Spray	FULL	As per TDS
Intumescent Coat	Nullifire SC902	Nullifire SC902	AS PER LOADING SCHEDULE	120/--/--	Airless Spray	FULL	Carboline #10 100% Xylene
Optional Topcoats	Carbothane 133LH	Carbothane 133LH	100 Microns Dry Film Thickness	N/A	Roller/Brush/Spray	FULL	As per TDS
Notes	Level of Finish to be approved by the Architect prior to the start of the project. Optional topcoat required if the steelwork is to be left in an open construction phase for longer than 3 months. A Stripe coat of Carboguard 635 at 75 microns dft should be applied over the primer coat to all corners, edges, joints etc. Topcoat thicknesses are minimum requirement. For shop application of Nullifire SC902 the use of Carboquick 200 topcoat will give a more durable finish during transportation and construction. Carboquick 200 can only be spray applied – brush and roller for minor touch up.						

FACTORY OR SITE INTUMESCENT COATING APPLICATION							
Nullifire SC902 Finish Standard Required		Location			Finish Required		
		Internal Steelwork Visible FRL up to 120 minutes up to C2			To Be Confirmed by Client.		
	Product	Data Sheet No.	Dry Film Thickness (Microns)	FRL	Application Method	Spot/Full/Stripe Coat	Thinner Required
Primer Coat	Carboguard 635	Carboguard 635	75 Microns Dry Film Thickness	N/A	Airless Spray	FULL	As per TDS
Intumescent Coat	Nullifire SC902	Nullifire SC902	AS PER LOADING SCHEDULE	120/--/--	Airless Spray	FULL	Carboline #10 100% Xylene
Compatible Topcoat	Carbothane 133 LH	Carbothane 133 LH	75 Microns Dry Film Thickness	N/A	Roller/Brush/Spray	FULL	As per TDS
Compatible Topcoat	Carbothane 133LH	Carbothane 133LH	75 Microns Dry Film Thickness	N/A	Roller/Brush/Spray	FULL	As per TDS
Notes	Level of finish to be approved by Architect prior to start of project. Topcoat also required if the steelwork is to be left in an open construction phase for longer than 3 months maximum. A Stripe coat of Carboguard 635 at 75 microns dft should be applied over the primer coat to all corners, edges, joints etc. An additional coat of Carbothane 133LH may be required depending upon colour of finish chosen. Topcoat thicknesses are minimum requirement. For shop application of Nullifire SC902 the use of Carboquick 200 topcoat will give a more durable finish during transportation and construction Carboquick 200 can only be spray applied – brush and roller for minor touch up.						

FACTORY OR SITE INTUMESCENT COATING APPLICATION							
Nullifire SC902 Finish Standard Required		Location			Finish Required		
		External Steelwork Visible FRL up to 120 minutes Max C4			To Be Confirmed by Client.		
	Product	Data Sheet No.	Dry Film Thickness (Microns)	FRL	Application Method	Spot/Full/Stripe Coat	Thinner Required
Primer Coat	Carbozinc 15-625	Carbozinc 15-625	75 Microns Dry Film Thickness	N/A	Airless Spray	FULL	As per TDS
Intermediate	Carboguard 635	Carboguard 635	75 Microns Dry Film Thickness	N/A	Airless Spray	FULL	As per TDS
Intumescent Coat	Nullifire SC902	Nullifire SC902	AS PER LOADING SCHEDULE	120/--/--	Airless Spray	FULL	Carboline #10 100% Xylene
Compatible Topcoat	Carboquick 200	Carboquick 200	100 Microns Dry Film Thickness	N/A	Roller/Brush/Spray	FULL	As per TDS
Compatible Topcoat	Carboquick 200	Carboquick 200	100 Microns Dry Film Thickness	N/A	Roller/Brush/Spray	FULL	As per TDS
Notes	Level of finish to be approved by Architect prior to the start of project. Topcoat also required if the steelwork is to be left in an open construction phase for longer than 3 months maximum. A Stripe coat of Carboguard 635 at 50 microns dft should be applied over the primer coat to all corners, edges, joints etc. A stripe coat of Carboquick 200 at 75 microns dft should be applied over the Nullifire SC902 to all corners, edges, joints etc. Topcoat thicknesses are minimum requirement. Carboquick 200 can only be spray applied – brush and roller for minor touch up						

FACTORY OR SITE INTUMESCENT COATING APPLICATION							
Nullifire SC902 Finish Standard Required		Location			Finish Required		
		External Steelwork Visible FRL up to 120 minutes Max C3			To Be Confirmed by Client.		
	Product	Data Sheet No.	Dry Film Thickness (Microns)	FRL	Application Method	Spot/Full/Stripe Coat	Thinner Required
Primer Coat	Carbozinc 15-625	Carbozinc 15-625	75 Microns Dry Film Thickness	N/A	Airless Spray	FULL	As per TDS
Intumescent Coat	Nullifire SC902	Nullifire SC902	AS PER LOADING SCHEDULE	120/--/--	Airless Spray	FULL	Carboline #10 100% Xylene
Compatible Topcoat	Carboquick 200	Carboquick 200	75 Microns Dry Film Thickness	N/A	Roller/Brush/Spray	FULL	As per TDS
Compatible Topcoat	Carboquick 200	Carboquick 200	75 Microns Dry Film Thickness	N/A	Roller/Brush/Spray	FULL	As per TDS
Notes	Level of finish to be approved by Architect prior to the start of project Topcoat also required if the steelwork is to be left in an open construction phase for longer than 3 months maximum. A Stripe coat of Carbozinc 15-625 at 50 microns DFT should be applied over the primer coat to all corners, edges, joints etc. A stripe coat of Carbothane 133LH at 75 microns DFT should be applied over the Nullifire SC902 to all corners, edges, joints etc. Topcoat thicknesses are minimum requirement. For shop application of Nullifire SC902 the use of Carboquick 200 topcoat will give a more durable finish during transportation and construction Carboquick 200 can only be spray applied – brush and roller for minor touch up.						

FACTORY OR SITE INTUMESCENT COATING APPLICATION							
Nullifire SC902 Finish Standard Required		Location			Finish Required		
		Swimming pool Steelwork Visible FRL up to 120 minutes Max C3			To Be Confirmed by Client.		
	Product	Data Sheet No.	Dry Film Thickness (Microns)	FRL	Application Method	Spot/Full/Stripe Coat	Thinner Required
Primer Coat	Carboguard 635	Carboguard 635	100 Microns Dry Film Thickness	N/A	Airless Spray	FULL	As per TDS
Intumescent Coat	Nullifire SC902	Nullifire SC902	AS PER LOADING SCHEDULE	120/--/--	Airless Spray	FULL	Carboline #10 100% Xylene
Compatible Topcoat	Carboquick 200	Carboquick 200	100 Microns Dry Film Thickness	N/A	Roller/Brush/Spray	FULL	As per TDS
Compatible Topcoat	Carboquick 200	Carboquick 200	100 Microns Dry Film Thickness	N/A	Roller/Brush/Spray	FULL	As per TDS
Notes	Level of finish to be approved by Architect prior to the start of project. Topcoat also required if the steelwork is to be left in an open construction phase for longer than 3 months maximum. A Stripe coat of Carboguard 635 at 50 microns dft should be applied over the primer coat to all corners, edges, joints etc. A stripe coat of Carboquick 200 at 75 microns dft should be applied over the Nullifire SC902 to all corners, edges, joints etc Topcoat thicknesses are minimum requirement						

FACTORY OR SITE INTUMESCENT COATING APPLICATION						
Nullifire SC902 Finish Standard Required	Location			Finish Required		
	External Galvanized Steelwork Visible FRL up to 120 minutes Max C4			To Be Confirmed by Client.		
	Product	Data Sheet No.	Dry Film Thickness (Microns)	Application Method	Spot/Full/Stripe Coat	Thinner Required
Galvanized Steel Repair	Carbozinc 15-625	Carbozinc 15-625	75 Microns Dry Film Thickness	Airless Spray	SPOT	As per TDS
Primer Coat	Carboguard 635	Carboguard 635	75 Microns Dry Film Thickness	Airless Spray	FULL	As per TDS
Intumescent Coat	Nullifire SC902	Nullifire SC902	AS PER LOADING SCHEDULE	Airless Spray	FULL	Carboline #10 100% Xylene
Compatible Topcoat	Carbothane 133LH	Carbothane 133LH	100 Microns Dry Film Thickness	Roller/Brush/Spray	FULL	As per TDS
Compatible Topcoat	Carbothane 133LH	Carbothane 133LH	100 Microns Dry Film Thickness	Roller/Brush/Spray	FULL	As per TDS
Notes	Level of finish to be approved by Architect prior to the start of project. Topcoat also required if the steelwork is to be left in an open construction phase for longer than 3 months maximum. A stripe coat of Carbothane 133LH at 100 microns DFT should be applied over the Nullifire SC902 to all corners, edges, joints etc. Refer to Surface Preparation & Application Guide for galvanized steel repair procedure. For shop application of Nullifire SC902 the use of Carboquick 200 topcoat will give a more durable finish during transportation and construction Carboquick 200 can only be spray applied – brush and roller for minor touch up.					



Nullifire SC803

Product Overview

Nullifire SC803 Intumescent Base Coat is a water-based, white, thin film intumescent coating for the protection of internal structural steelwork.

SC803 is a water based intumescent coating used for internal structural steel to C1 and C2 environments. The coating can then be protected with a suitable top seal for decorative and durability purposes.

SC803 was developed to give optimised loadings for 60-minute fire resistance but can protect some 90 min requirements.

SC803 can be applied to a smooth matt finish. A compatible top seal can be applied if a decorative finish is required.

KEY BENEFITS

- Ultra-low VOC. Contains no substances of very high concern.
- Water-based formulation.
- Market leading loadings.
- Compatible with a wide range of Nullifire primers and top seals.
- Easy to apply, with excellent aesthetics.
- Optifire+® unique traceability identifier.
- Certified EN13381-8
- Assessed to AS4100-2020 and in accordance to AS1530.4-2014
- For building classifications C1 and internal environment



FACTORY OR SITE INTUMESCENT COATING APPLICATION							
Nullifire SC803 Finish Standard Required	Location				Finish Required		
	Internal Steelwork Non-Visible FRL up to 120 minutes C1				To Be Confirmed by Client.		
	Product	Data Sheet No.	Dry Film Thickness (Microns)	FRL	Application Method	Spot/Full/Stripe Coat	Thinner Required
Primer Coat	Carboguard 635	Carboguard 635	75 Microns Dry Film Thickness	N/A	Airless Spray	FULL	As per TDS
Intumescent Coat	Nullifire SC803	Nullifire SC803	AS PER LOADING SCHEDULE	90/--/--	Airless Spray	FULL	Clean Fresh Water
Optional Topcoat	Carbothane 133LH	Carbothane 133LH	75 Microns Dry Film Thickness	N/A	Roller/Brush/Spray	FULL	As per TDS
Notes	Level of Finish to be approved by the Architect prior to the start of the project. Optional topcoat to give some protection if required during the construction phase. A Stripe coat of the primer at 75 microns DFT should be applied over the primer coat to all corners, edges, joints, etc. If Nullifire SC803 is applied in the factory then two topcoats of Carbothane 133LH at 75 microns dft per coat is required						

Structural Steel Fire Protection



Nullifire SC803 Finish Standard Required		Location			Finish Required		
		Internal Steelwork Visible FRL up to 90 minutes up to C2			To Be Confirmed by Client.		
	Product	Data Sheet No.	Dry Film Thickness (Microns)	FRL	Application Method	Spot/Full/Stripe Coat	Thinner Required
Primer Coat	Carboguard 635	Carboguard 635	75 Microns Dry Film Thickness	N/A	Airless Spray	FULL	As per TDS
Intumescent Coat	Nullifire SC803	Nullifire SC803	AS PER LOADING SCHEDULE	90/--/--	Airless Spray	FULL	Clean Fresh Water
Compatible Topcoat	Carbothane 133LH	Carbothane 133LH	75 Microns Dry Film Thickness	N/A	Roller/Brush/Spray	FULL	As per TDS
Compatible Topcoat	Carbothane 133LH	Carbothane 133LH	75 Microns Dry Film Thickness	N/A	Roller/Brush/Spray	FULL	As per TDS
Notes	Level of Finish to be approved by the Architect prior to the start of the project. Optional topcoat to give some protection if required during the construction phase. A Stripe coat of the primer at 75 microns DFT should be applied over the primer coat to all corners, edges, joints, etc. If Nullifire SC803 is applied in the factory then two topcoats of Carbothane 133LH at 75 microns dft per coat is required						

Case Study

No.164 Sub Station

Heritage meets innovation with this striking design where two historic Sydney buildings have been bought to life by award-winning firm FJMT. Creating a unique and innovative workspace, the seven-level abstract glass extension creates the illusion that it is floating above the streetscape.

Nullifire SC902 intumescent coating was selected for use on this amazing structural steel design due to its unique capabilities. Nullifire SC902 is a fast curing, low VOC, one coat, high build system, based on patented technology ensuring the advantage of a fire rating of up to 2 hours.



Standard Detail Drawings

Figure 1 to Figure 2 show the construction and treatment at the interface between the two structural steel protection systems.

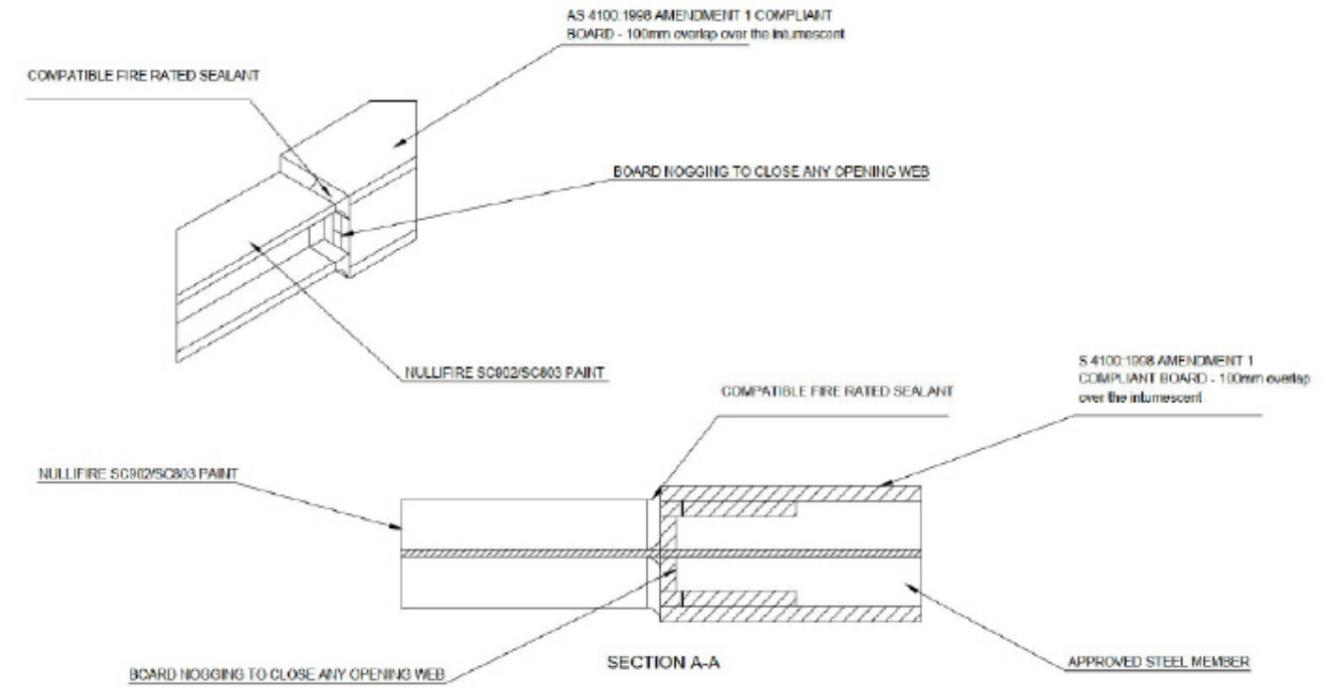


Figure 1 The construction detail when the board protection system is added next to the Nullfire intumescent coating

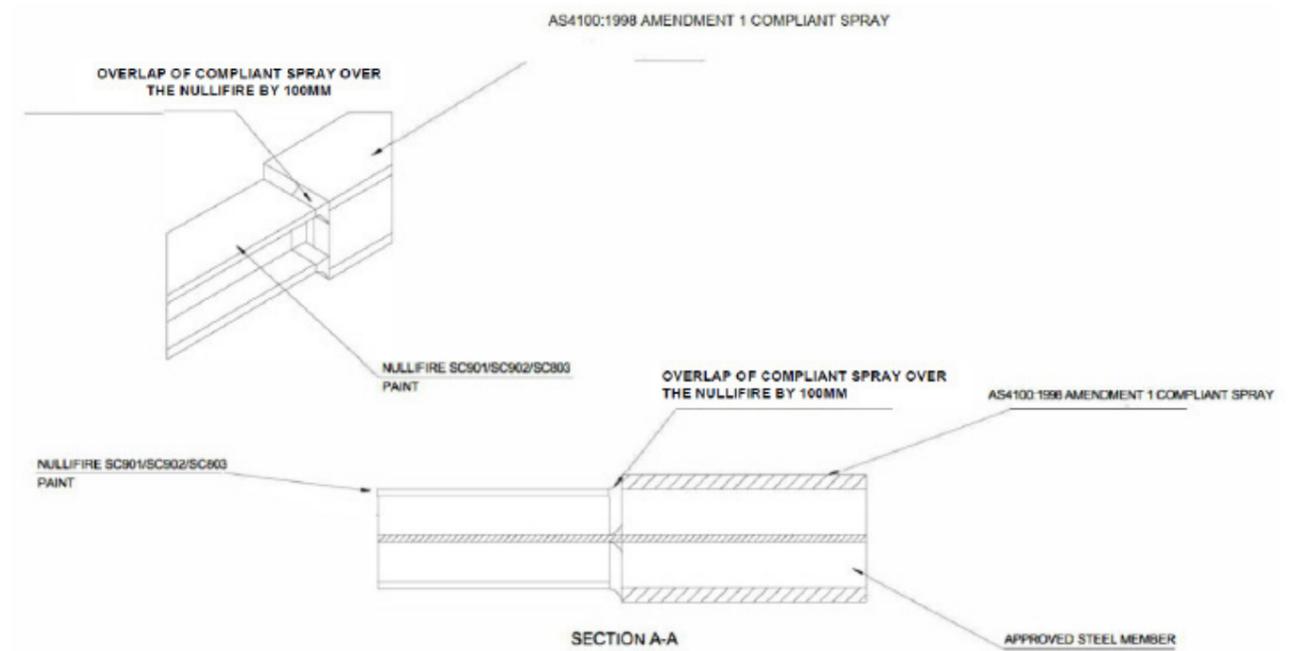


Figure 2 The construction detail when the spray protection system is added next to the Nullfire intumescent coating

Certification and Accreditation

Nullifire's passive fire protection solutions have been tested to many of the latest International standards, providing the highest levels of certification. Installing Nullifire products will provide a system that is not only fit for purpose today, but will meet changing legislation in the future.



Nullifire products are supplied by Tremco CPG Australia to strict quality standards. Any product applied (a) in accordance with Tremco CPG Australia's written instructions and (b) in any application recommended by Tremco CPG Australia, but found to be defective, will be replaced free of charge. No liability is accepted for the information provided in this leaflet, although it is published in good faith and believed to be accurate. Tremco CPG Australia reserves the right to modify product specifications without prior notice, in line with the company's policy of continuous development and improvement.



Part of Tremco CPG APAC



We know that the success of a construction project relies on more than the products that are used, as it takes a lot of skill, knowledge, understanding, and expertise to ensure that those products are applied in the best way possible.

At Tremco Construction Products Group (CPG), we're committed to shaping the future through innovative approaches and sustainable solutions.

This commitment is backed up by the fact that we bring together first-class technology with a customer-focused approach, along with skills that have been built up over multiple decades within very specialised fields across Asia Pacific, to provide a truly unique service.

From joint sealing, façade bonding and insulation through to passive fire protection, performance resin flooring, waterproofing, and roofing solutions — our broad range makes us the ideal partner to solve the complex challenges faced by today's architects, contractors, developers, and trades.

With expertise in a range of product technologies, Tremco CPG provides solutions to help you engineer structures that are more efficient to build and maintain, are virtually impervious to the elements, and can provide a multitude of finishes.

Our brands include Tremco, Dryvit, NewBrick, Nudura, Willseal, Flowcrete, illbruck, Nullifire, Vandex, and Euclid Chemical.





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