

### Selection & Specification Data

<b>Generic Type</b>	Nullifire® SC801-120 Waterborne Basecoat is a thin film intumescent coating for the fire protection of internal structural steelwork. Nullifire® SC801-120 embodies the latest halogen-free ultra-low VOC water-borne intumescent basecoat technology.
<b>Description</b>	SC801-120 has been formulated, tested and optimised for 90 and 120 FRR protection.
<b>Features</b>	<ul style="list-style-type: none"> <li>• Rigorously tested and certified in accordance with BS476: Part 21: 1987 - Reference:               <ul style="list-style-type: none"> <li>○ Certifire® CF5365</li> <li>○ Underwriters Laboratories (UL) Report No. R11193</li> </ul> </li> <li>• Waterborne technology</li> <li>• Ultra-low VOC: 1 gm / litre               <ul style="list-style-type: none"> <li>○ 99% below IEQ-3 Indoor Air Quality requirement of ≤ 100 g/lit.</li> </ul> </li> <li>• Halogen-free formulation</li> <li>• Low odour, user friendly</li> <li>• No topseal required for interior, dry non-decorative exposures</li> <li>• Rapid dry to recoat / topcoat (refer to dry time and ventilation tables overleaf)</li> <li>• Other Certification:               <ul style="list-style-type: none"> <li>○ Fire Propagation / Spread of Flame                   <ul style="list-style-type: none"> <li>▪ BS476: 6/7 Class 0</li> </ul> </li> <li>○ EN13823 (SBI) and IMO smoke / toxicity</li> <li>○ Certifire® fully tested on cellular beams</li> </ul> </li> </ul>
<b>Gloss</b>	Flat
<b>Colour</b>	White
<b>Primers</b>	Wide range of compatible primers including Carbozinc® 859 EZ2 epoxy zinc-rich (surface must be free of zinc salts) and Altex High Build Rust Barrier modified alkyd primer. Do NOT use thermoplastic types such as chlorinated rubber or conventional acrylic etc..
<b>Topcoats</b>	As specified
<b>Film Thickness</b>	DFT as specified on relevant fireproofing loading schedule.. NOTE: Maximum 1200 microns WFT (Wet Film Thickness) per coat
<b>Volume Solids</b>	69% ±2%
<b>Theoretical Coverage Rate</b>	6.90 m <sup>2</sup> / litre at 100µm DFT 1.38 m <sup>2</sup> / litre at 500µm DFT
<b>Mix Ratio</b>	N/A – single component
<b>VOC Values</b>	<1 gm / litre (EU: <0.5 g/l)

### Substrates & Surface Preparation

<b>General</b>	All surfaces should be clean, dry and free of surface contamination.
<b>Steel</b>	Abrasive Blast to AS1627.4 Class 2 or better, or minimum Power Tool Clean to AS 1627.2. Prime with compatible primer.
<b>Galvanized Steel</b>	Ensure all passivation coating is removed and abrade surface. Prime with compatible non-saponifiable primer.
<b>Previously Painted Areas</b>	Refer to Carboline / Altex Technical Services

### Application Notes & Checklist

Nullifire SC801-120 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.  
SC801-120 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, moisture or condensation during the application and drying of SC801-120.

#### Checklist:

The following instructions are for on-site application only. Ensure that:

- The primer is compatible with SC801-120 and has been applied correctly.
- The overcoating period for the primer has not been exceeded.
- The correct primer is used for galvanized structural steel\*\*.
- All damage to the primer has been repaired & re-primed.
- Site and weather conditions are within specification.
- SC801-120 is stored correctly.
- Surface is clean, dry and free from contamination.
- Correct spray equipment is available, if appropriate.
  - **Note: Remove all line & gun filters**
- Application instructions have been read prior to commencement of work.
- Equipment should be clean and free from contaminants or dried material.
- Wet film gauges are available for use.

\*\*Site touch-up of galvanized nuts and bolt-heads do not require priming; ensure galvanizing is clean and abrade if bright spangle still present.

### Application Equipment

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results. **General Guidelines:**

<b>Conventional Spray</b>	Use only a high capacity remote pressure pot assembly.
<b>Airless Spray</b>	Pump: 40:1 ratio, min. ¾" (9.5mm) hose Pressure: 2500 - 3000 psi (17.2 - 20.7 MPa) Fluid Tip: 0.019" to 0.025" free-flow tip. 20° - 40° Fan Angle <b>Remove all line &amp; gun filters.</b>
<b>Brush &amp; Roller</b>	Brushing only suitable for small areas or touch-up and may result in a ribbed finish..

## Dry Time to Self-Recoat Schedules

## Nullifire SC801-120

Estimated self-recoat times (hours) at varying film thicknesses in still air and with positive air-flow (draught).

Drying of SC801-120 is dependent upon a number of factors including temperature (surface and ambient), air movement, humidity, method of application, and thickness of coating.

### S801-120 (guide only)

RH	WFT (µm)	10°C		20°C		30°C	
		Still Air	Air Flow	Still Air	Air Flow	Still Air	Air Flow
30%	700	6	3.5	4.5	1.5	3.5	1.5
	1000	8	4.5	6	3	4.5	2.5
	1200	12	5.5	8	4.5	6	3
50%	700	12	4	5	2	4	1.5
	1000	15	5	9	4	6	3
	1200	24	8	16	6	10	4
70%	600	12	8	10	4	8	3
	800	18	10	12	7	10	6
	1200	24	16	18	12	12	7

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

## Mixing & Thinning

**Mixing** Power blend to a smooth homogeneous mix using a Jiffy Mixer or similar non-aerating mixer.

**Mix Ratio** N/A –single component product

**Thinning** Generally not recommended. Use clean fresh potable water if required

## Cleanup & Safety

**Cleanup** Clean up with fresh water. Hardened deposits may be removed with Thinner #10

**Precautions** For industrial use only. See the Altex Coatings General Safety Data Sheet, product label and Material Safety Data Sheet (MSDS) for health and safety information prior to use. Use with adequate ventilation. May cause eye and skin irritation. Do not breathe vapour or spray. Wear suitable protective clothing such as gloves and eye and face protection.

## Packaging, Handling & Storage

**Pack Sizes** 25 kg pails 18.1 litres

**Flash Point** N/A

**Storage Temperature & Humidity** Store at ≥ 5°C and ≤ 25°C; 0 to 95% RH. Store indoors and under cover in temperate conditions. Do not expose to extreme heat; ie if stored outside in shipping containers keep product away from sun heated walls. Do not freeze.

**Shelf Life\*** 9 months

**\*Shelf Life: Minimum shelf life if stored under cover in original sealed containers and under recommended storage conditions.**

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