

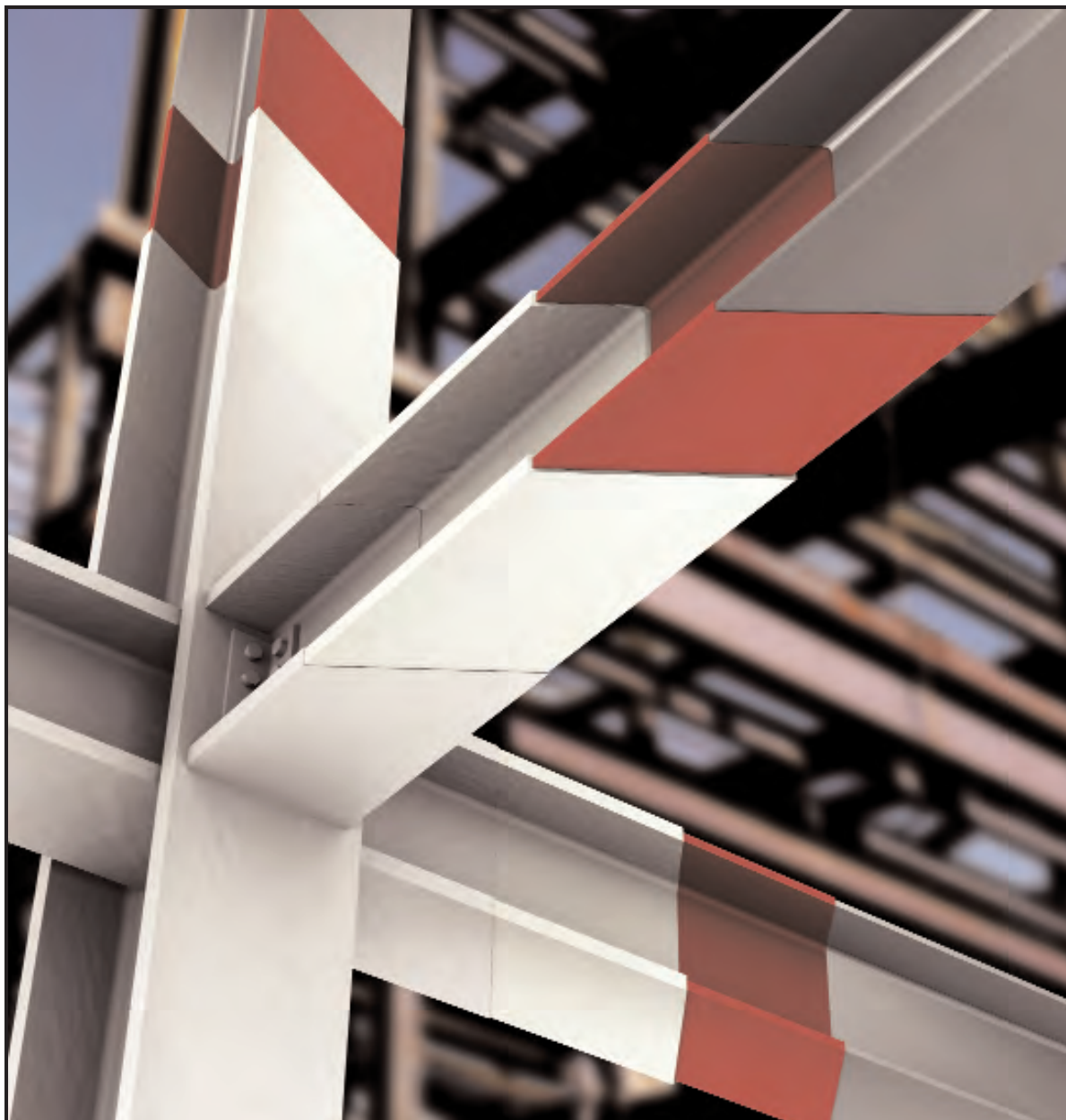
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# Cafco SPRAYFILM® WB2

*Water Based Intumescent Coating*

construction applications



## Cafco SPRAYFILM® WB2

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### Water Based Intumescent Coating

#### INTRODUCTION

Cafco SPRAYFILM® WB2 is a water based intumescent coating consisting of polyvinyl acetate resins and fillers for the fire protection of structural steel. It can be sealed and protected with a decorative top coat.

Cafco SPRAYFILM® WB2 is applied directly to the contour of primed I and H-section columns, angles, channels and beams, and hollow sections, to provide fire protection for up to 120 minutes. In a fire, a chemical reaction takes place, causing the Cafco SPRAYFILM® WB2 to expand and form an insulating layer which prevents the temperature of the steel rising above a critical level.

#### ADVANTAGES

- Provides fire resistance for up to 120 minutes in accordance with BS 476: Part 21, EN 13381: Part 4 and up to 180 minutes in accordance with ASTM E119, NFPA 251
- Durable and decorative finish
- Steelwork may be left exposed to view
- Chemical and abuse resistant
- Can be top coated to match surroundings
- Easy application and clean up with water
- Fast drying time

#### QUALITY ASSURANCE

Promat operates a quality system in accordance with BS EN ISO 9001: 2008 and has received full accreditation to these standards.

Operating to these standards means that all activities, which have a bearing upon quality, are set out in written procedures.

Systematic and thorough checks are made on all materials and their usage. Test equipment is subjected to regular checks and is referred back to national standards.

The information given in this data sheet is based on actual tests and is believed to be typical of the product. No guarantee of results is implied however, since conditions of use are beyond our control.



# Cafco SPRAYFILM® WB2

## Water Based Intumescent Coating

### PROPERTIES AND PERFORMANCE

<b>Colour and finish</b>	White with a slight sheen. Preferably spray applied with airless paint equipment for speed and quality of finish. Brush and roller application is also possible
<b>Maximum thickness per coat</b>	1.0mm wet film thickness (WFT) using spray and 0.76mm using brush. For airless spraying, several thin coats as opposed to one heavy coat will give greater control over finish and thickness
<b>Practical coverage</b>	Dependent on surface texture, substrate, application method and technique
<b>Theoretical coverage</b>	Approximately 25m <sup>2</sup> /pail (25kg) at 0.5mm dry film thickness (DFT)
<b>Number of coats</b>	One or more as required
<b>Cure</b>	By air drying
<b>Drying time</b>	Approximately 6 hours at 20°C and 50% RH for 0.4mm WFT
<b>Solids by weight</b>	70% ± 2
<b>Weight</b>	1.33kg/litre
<b>Surface burning</b>	Flame spread 0, smoke development 10 when tested to ASTM E84
<b>Durometer hardness</b>	85 shore D when tested to ASTM D2240
<b>Impact resistance</b>	30kg/m when tested to ASTM D2794
<b>Abrasion resistance</b>	0.7411g/1000 cycles when tested to ASTM D4060
<b>pH value</b>	7.8 - 8.2
<b>Fire resistance</b>	Structures protected with Cafco SPRAYFILM® WB2 have undergone fire resistance tests at approved independent laboratories to recognised standards throughout the world, including: <ul style="list-style-type: none"><li>• UK (BS 476: Part 21) and EN 13381: Part 4</li><li>• Canada and USA (ASTM E119 and ASTM E84)</li></ul>

### HEALTH AND SAFETY

Adequate ventilation must be provided during use. Avoid contact with the skin and eyes by using eye protection, gloves, barrier cream and a face mask.

If the product comes into contact with the skin, wash immediately with soap and water. If the eyes are affected, flush with plenty of water and seek medical attention immediately.

A safety data sheet is available from Promat upon request.

Promat activities are conducted with due regard to all statutory requirements with appropriate safeguards against exposing employees and the public to health and safety risks.



# Cafco SPRAYFILM® WB2

## Water Based Intumescent Coating

### PREPARATION

Typical substrates	Primed steel
Substrate preparation	<p>The substrate shall be clean, dry and free from dust, oil and any other condition preventing good adhesion</p> <p>Before applying Cafco SPRAYFILM® WB2 to structural steel, the steel must be blast clean to SA 2.5 (ISO 8501-1: 1998), primed with a compatible primer, approved by Promat and applied in full compliance with the manufacturer's recommendations</p> <p>Primers compatible with Cafco SPRAYFILM® WB2 are generally of the following types:</p> <ul style="list-style-type: none"> <li>● Epoxypolyamide</li> <li>● Zinc rich epoxy</li> <li>● Vinyl modified epoxy</li> <li>● Alkyd</li> <li>● Phenolic resin modified alkyd</li> </ul> <p>If left exposed for long periods, zinc rich epoxies may form a layer of zinc salts on the surface. These salts must be completely removed before applying Cafco SPRAYFILM® WB2</p>

### APPLICATION

Methods	<p>Cafco SPRAYFILM® WB2 is supplied ready for use and should not be diluted. The primer thickness should be measured and recorded prior to the application of Cafco SPRAYFILM® WB2, in order to accurately check the thickness of Cafco SPRAYFILM® WB2 during and after application</p> <p>Stir Cafco SPRAYFILM® WB2 thoroughly with a drill type mixer prior to application by either airless spray, brush or roller</p> <p>Protect from rain and high humidity during application and drying</p>
Thickness checking during application	<p>To ensure the correct thickness is being applied, frequent measurements should be taken using a wet film thickness gauge. To determine approximate dry film thickness (DFT) based on wet film thickness (WFT), multiply WFT by 0.70</p> <p>For example: 1.3mm WFT x 0.70 = 0.910mm DFT</p>
Limitations	<p>Take a dry film thickness reading as soon as the coating is fully cured. An Elecometer 211 permanent magnetic banana gauge or Elecometer 456 electromagnetic (electronic gauge) type may be used. Ensure primer thickness is deducted from final thickness reading</p> <p>If Cafco SPRAYFILM® WB2 is left exposed for extended periods, it must be protected from rain and high humidity or sealed with a topcoat appropriate for the environmental conditions</p>





## Cafco SPRAYFILM® WB2

### Water Based Intumescent Coating

#### FIRE PROTECTION THICKNESS

The thickness of the fire protection for a given period of fire resistance in a cellulosic type fire, relates to the A/V ratio of the section.

All column and beam sections have their own specific A/V ratio. Please consult Promat Technical Services Department to establish the A/V ratio for a particular beam or column section and to ascertain the required thickness of Cafco SPRAYFILM® WB2.

For advice on thickness calculations for I and H-section beams and columns, castellated sections, composite floors, upgrading of concrete slabs and more complex situations, please contact Promat Technical Services Department.

#### TOP COATING

In exposed and semi-exposed interior environments, the applied Cafco SPRAYFILM® WB2 should be coated with a compatible finish coat, in order to give the desired colour and seal the Cafco SPRAYFILM® WB2.

The topcoat system must be suitable for the environment in which it is to be used and should be a good quality, long oil alkyd, silicone, acrylic latex or polyurethane type. All topcoats should be applied in accordance with the topcoat manufacturer's recommendations.

Ensure that the Cafco SPRAYFILM® WB2 is thoroughly dry before application of top coat.

Typically, allow a minimum of 7 days for the Cafco SPRAYFILM® WB2 to fully cure before application of any top coat system.

For the top coat compatibility, please consult Promat Technical Services Department.

#### PACKAGING

25kg plastic pails.

#### STORAGE

- Indoors in dry conditions between 10°C and 38°C.
- Protect from frost, excessive heat (above 45°C) and strong radiant sunlight.

#### SHELF LIFE

Maximum 10 months in original sealed containers.

#### ENVIRONMENTAL

Do not discharge into drains, watercourses or soil.



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