



## FIRE RESISTANT AQUASTEEL WB+

### FACTS & FIGURES

#### INTRODUCTION

The following is intended to assist contractors and applicators who wish to use Zeroflame AquaSteel WB+ Intumescent Coating on structural steel. Additional information is to be found on the container label and assistance may be sought from Zeroflame.

#### FACTS

1. Zeroflame AquaSteel WB+ is an intumescent coating which provides ½ hour and 1 hour fire resistance on all standard sizes and profiles of structural steel.
2. Zeroflame AquaSteel WB+ has been tested to internationally recognized fire test standards (BS476: Part 20/21: 1987 Test Reference CF655).
3. Zeroflame AquaSteel WB+ is water based, non-hazardous and contains no solvents or other constituents harmful to the environment.
4. Zeroflame AquaSteel WB+ has been specially formulated for non-specialist application.
5. Zeroflame AquaSteel WB+ can be applied by brush, roller or spray.
6. Zeroflame AquaSteel WB+ is a high-solids coating permitting rapid build with a minimum number of coats.
7. Zeroflame AquaSteel WB+ is compatible with most commonly used anti-corrosion primers with the exception of primers based on chlorinated rubber, bitumen and thermoplastics. Galvanized steel or zinc rich primers require a tie coat of a suitable primer.
8. In common with all water-based coatings, application and drying conditions for Zeroflame AquaSteel WB+ are important. Low ambient and surface temperatures and high relative humidity can significantly affect application rates and curing times.
9. Zeroflame AquaSteel WB+ can be used without a finish coat in buildings which are consistently dry and having stable atmospheric conditions. In areas subject to wetting, or fluctuating temperatures and RH, a sealing coat should be used.
10. During the building phase, Zeroflame AquaSteel WB+ should be protected from exposure to the elements until fully cured. If exposure exceeds 2 weeks a sealing coat is recommended.

**FACTS cont...**

11. Zeroflame AquaSteel WB+ is matt white but if a colour finish is required a range of compatible coloured finishes is available.
12. To establish compliance with the specification and with Building Regulations, a 'Confirmation of Supply and Declaration of Application Document' may be required. An application form is included on the product label.

**FIGURES**

1. Zeroflame AquaSteel WB+ is supplied in 10, 5 and 2.5 litre containers.
2. Zeroflame AquaSteel WB+ coverage rates are as follows:

**30 Minutes Fire Resistance** (BS476: Part 20/21: 1987)

'I' Sections	Coverage Rate
3 sided (or less) Beams	3m <sup>2</sup> / litre
Columns and 4 sided Beams	2.3m <sup>2</sup> / litre
Hollow Sections	
Square and Rectangular	1.2m <sup>2</sup> / litre
Circular	0.43m <sup>2</sup> / litre

**60 Minutes Fire Resistance** (BS476: Part 20/21: 1987)

'I' Sections	Coverage Rate
3 sided (or less) Beams	1.2m <sup>2</sup> / litre
Columns and 4 sided Beams	0.5m <sup>2</sup> / litre
Hollow Sections	
Square and Rectangular	0.43m <sup>2</sup> / litre
Circular	0.43m <sup>2</sup> / litre

3. Zeroflame AquaSteel WB+ coverage rates apply to structural steel having the following minimum thicknesses:

Section	Flange/Wall Thickness	Hp/A
Universal Beams 3 sided	Flange Thickness - 7.6mm	300m <sup>-1</sup>
Universal Columns + 4 sided Beams	Flange Thickness - 6.8mm	300m <sup>-1</sup>
Hollow Sections (½ Hour)	Wall Thickness - 4.0mm	300m <sup>-1</sup>
Rectangular Hollow Sections (1 Hour)	Wall Thickness - 6.0mm	205m <sup>-1</sup>
Circular Hollow Sections (1 Hour)	Wall Thickness - 8.0mm	140m <sup>-1</sup>

Advice should be sought from Zeroflame if minimum thickness is less than above.

**FIGURES cont...**

4. Zeroflame AquaSteel WB+ maximum application rates per coat are as follows at surface and ambient temperatures greater than 5°C and RH less than 80%:

Application Type	Wet Film	Dry Film
Brush/Roller	1.0mm	0.72mm
Spray	1.5mm	1.08mm

(The above application rates may not be achieved if the temperatures are lower and the relative humidity is higher).

5. Zeroflame AquaSteel WB+ drying times are dictated by the conditions pertaining at the time. At a temperature of 20°C and 60% RH, allow the following times between coats:

Application Type	Time
Brush/Roller	4 Hours minimum
Spray	6 Hours minimum

Protect the surface from rain or wetting during curing. If applying a top seal, apply within 2 weeks.

6. Suggested Application Equipment:

Application Type	Details
Brush	3" Synthetic Filament Brush
Roller	4" Roller, 3/8" nap fabric
Spray	Operating Pressure: 2500-3000 psi Tip Size: 19-25 thou Fan Angle: 20°-40° Hose Diameter: 10mm, internal Hose Length: Not exceeding 60 metres

**Do not thin the product.**

**Wash all equipment with water immediately after use.**

All information in this data sheet is provided in good faith by Decor Ireland and is believed to be correct at the time of printing. Decor Ireland reserves the right to change product specification in line with their policy of continuing product development.

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