

# AQUA STEEL® WB+

## FACTS & FIGURES

### INTRODUCTION

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

### FACTS

1. **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. **AQUASTEEL WB+** has been tested to Internationally recognized Fire Test Standards (BS476: Part 20/21: 1987 Test Reference CF655).
3. **AQUASTEEL WB+** is water based, non-hazardous and contains no solvents or other constituents harmful to the environment.
4. **AQUASTEEL WB+** has been specially formulated for non-specialist application.
5. **AQUASTEEL WB+** can be applied by brush, roller or spray.
6. **AQUASTEEL WB+** is a high-solids coating permitting rapid build with a minimum number of coats.
7. **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 **AQUASTEEL WB+** are important. Low Ambient and Surface Temperatures and high Relative Humidity can significantly affect application rates and curing times.
9. **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, **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. **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. **AQUASTEEL WB+** is supplied in 10, 5 and 2.5 litre containers.
2. **AQUASTEEL WB+** Coverage Rates are as follows:-

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

“T” Sections	Coverage Rate
<i>3 sided (or less) Beams</i>	<i>3m<sup>2</sup> / Litre</i>
<i>Columns and 4 sided Beams</i>	<i>2.3m<sup>2</sup> / Litre</i>
Hollow Sections	
<i>Square and Rectangular</i>	<i>1.2m<sup>2</sup> / Litre</i>
<i>Circular</i>	<i>0.43m<sup>2</sup> / Litre</i>

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

“T” Sections	Coverage Rate
<i>3 sided (or less) Beams</i>	<i>1.2m<sup>2</sup> / Litre</i>
<i>Columns and 4 sided Beams</i>	<i>0.5m<sup>2</sup> / Litre</i>
Hollow Sections	
<i>Square and Rectangular</i>	<i>0.43m<sup>2</sup> / Litre</i>
<i>Circular</i>	<i>0.43m<sup>2</sup> / Litre</i>

3. **Aquasteel WB+** Coverage Rates apply to Structural Steel having the following minimum thicknesses:-

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

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

FIGURES cont....

4. **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
<i>Brush/Roller</i>	<i>1.0mm</i>	<i>0.72mm</i>
<i>Spray</i>	<i>1.5mm</i>	<i>1.08mm</i>

(The above Application Rates may not be achieved if the Temperatures are lower and the Relative Humidity is higher.)

5. **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
<i>Brush/Roller</i>	<i>4 Hours minimum</i>
<i>Spray</i>	<i>6 Hours minimum</i>

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

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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