



SPECIFICATION

INTRODUCTION

The 'ZeroFlame Range' stands for 'Fire Protection Simplified' and ZeroFlame AquaSteel WB+ is no exception.

In a single product are combined the virtues of water borne technology, simplified coverage rates and efficient fire protection.

DESCRIPTION

ZeroFlame AquaSteel WB+ provides up to 1 hour fire resistance on all standard steel sizes and profiles. It can be applied by conventional methods and does not require specialist equipment.

ZeroFlame AquaSteel WB+ is suitable for use in environmentally stable, dry internal locations without a sealer coat. In areas subject to wetting or severe condensation or where a coloured finish is required, a compatible top seal should be applied.

ZeroFlame AquaSteel WB+ is white and is supplied in 10, 5 and 2.5 litre containers, each of which is labelled with full instructions, including details on how to obtain a Certificate of Supply and Application. Certificates should always be obtained to authenticate the application and fire rating of the product at each site where it is used.

SPECIFICATION

Priming: Structural steel should always be prepared and primed with an anti-corrosion primer, preparation being to the primer manufacturer's specification. The choice of primer is dependent on the environmental conditions applying on the site. Most anti-corrosion primers are compatible with ZeroFlame AquaSteel WB+, with the following exceptions:

Chlorinated Rubber
Thermoplastic
Bitumen based

ZeroFlame AquaSteel WB+ may be applied over galvanising, zinc rich or zinc powder primers provided a suitable tie coat is first applied.

To provide a suitable base for ZeroFlame AquaSteel WB+, primers should not exceed 100 microns dry film thickness.

SPECIFICATION cont....

When specifying Zeroflame AquaSteel WB+, choose a relevant clause from the following options:

30 Minutes Fire Resistance

- I. To achieve 30 minutes fire resistance on I section steel being **horizontal beams exposed on 3 sides or less** apply Zeroflame AquaSteel WB+ Intumescent Coating at a theoretical coverage rate of 3.0m²/litre to achieve a dry film thickness of 0.24mm.
- II. To achieve 30 minutes fire resistance on I section steel being **horizontal beams exposed on all sides or vertical columns** apply Zeroflame AquaSteel WB+ Intumescent Coating at a theoretical coverage rate of 2.3m²/litre to achieve a dry film thickness of 0.28mm.
- III. To achieve 30 minutes fire resistance on **square, circular or rectangular hollow section steel** apply Zeroflame AquaSteel WB+ Intumescent Coating at a theoretical coverage rate of 1.9m²/litre to achieve a dry film thickness of 0.37mm.

60 Minutes Fire Resistance

- I. To achieve 60 minutes fire resistance on I section steel being **horizontal beams exposed on 3 sides or less** apply Zeroflame AquaSteel WB+ Intumescent Coating at a theoretical coverage rate of 1.4m²/litre to achieve a dry film thickness of 0.49mm.
- II. To achieve 60 minutes fire resistance on I section steel being **horizontal beams exposed on all sides or vertical columns** apply Zeroflame AquaSteel WB+ Intumescent Coating at a theoretical coverage rate of 1.1m²/litre to achieve a dry film thickness of 0.103mm.
- III. To achieve 60 minutes fire resistance on **square, rectangular or circular hollow section steel** apply Zeroflame AquaSteel WB+ Intumescent Coating at a theoretical coverage rate of 0.55m²/litre to achieve a dry film thickness of 1.28mm.

If a finish coat is required (consult Zeroflame for details of suitable Finishes)

Apply Finish coat in 1 or 2 coats, depending on the colour, at a theoretical coverage rate of 8-10m²/litre on fully cured Zeroflame AquaSteel WB+ Intumescent Coating.

Notes:

The above specifications relate to structural steel having the following minimum thicknesses:

Section	Flange/Wall Thickness	Hp/A
Universal Beams	Flange Thickness - 7.6mm	300m ⁻¹
Universal Columns	Flange Thickness - 6.8mm	300m ⁻¹
Hollow Sections (½ Hour)	Wall Thickness - 3.6mm	300m ⁻¹
Rectangular Hollow Sections (1 Hour) 4 Sides	Wall Thickness - 6.0mm	205m ⁻¹
Rectangular Hollow Sections (1 Hour) 3 Sides	Wall Thickness - 8.0mm	205m ⁻¹
Circular Hollow Sections (1 Hour)	Wall Thickness - 6.0mm	205m ⁻¹

For thinner / lighter members, please consult Zeroflame.

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