

ZEROflame™ FIRE RETARDANT **VARNISH**

TECHNICAL DATA

PRODUCT DESCRIPTION

Zeroflame Fire Retardant Varnish is a two coat system which achieves Class 0 and Class 1 Fire Propagation and Spread of Flame fire protection on timber and timber derived substrates.

The first coat of the system is with **Zeroflame Intumescent Base Coat**, which is a two pack waterborne base coat which requires mixing before use. The second coat is with **Zeroflame Clear Finish**, which is a single pack spirit based sealer. Both these products are included in each pack of Zeroflame Fire Retardant Varnish.

PACK CONTENTS

Each pack of Zeroflame Fire Retardant Varnish contains sufficient material of treat NOT MORE than 20m² flat timber area at the recommended coverage rates. **If applied to a larger area, the degree of fire protection intended will not be achieved and subsequent adhesion problems may be encountered.**

Each pack contains:-

- Zeroflame Intumescent Base Coat Component A: 2 litres
- Zeroflame Intumescent Base Coat Component B: 1.5 litres
- Zeroflame Clear Finish: 2.5 litres
- One 2½" synthetic filament brush
- Certificate application form
- Zeroflame Fire Retardant Varnish Technical Data Sheet

PRODUCT FEATURES

Zeroflame Fire Retardant Varnish:-

- Is a clear finish varnish to enhance the natural beauty of wood
- Retains the natural appearance of the wood
- Is available in three finishes – Satin, Matt and Gloss
- Is supplied in a pack which treats 20m²
- Suitable for non-specialist application
- Is applied by traditional methods
- Applicable by brush, roller or spray
- Suitable for off-site application
- Can achieve Class 0 and Class 1 on softwood, hardwood, veneers and plywood
- Has been tested to BS 476 Parts 6 and 7
- Is only a two coat system, reducing labour costs
- Can be re-coated with Zeroflame Clear Finish for re-decoration purposes

PRODUCT INFORMATION

<i>Appearance when dry</i>	Clear	
<i>Mixing ratio</i> <i>(Zeroflame Intumescent Base Coat)</i>	4 parts A to 3 parts B	Intum.Base Coat useable POT LIFE after mixing – 2 hours at 20°C
<i>Volume Solids</i>	Base Coat (mixed) – 68%	Clear Finish – 24%
<i>Spreading Rate (Theoretical)</i>	Base Coat– 6.8m ² / litre	Clear Finish – 10m ² / litre
<i>Storage</i>	PROTECT FROM FROST (minimum 5°C, maximum 40°C)	
<i>Shelf Life</i>	12 months in unopened containers	

DIRECTIONS FOR USE

Surface Preparation: All surfaces to be coated must be clean and dry. All dust, oils or other contamination must be removed. The presence of previous coatings will detrimentally affect adhesion and the fire protection performance.

Mixing: Zeroflame Intumescent Base Coat consists of 2 components: A & B. Both must be stirred thoroughly before mixing. After stirring, slowly pour Component B into Component A, stirring continuously.

The POT LIFE of the combined components is 2 Hours at 20°C, longer at lower temperatures.

If it is desired to prepare part only of the Base Coat, take particular care to measure both components accurately, the mixing ratio being 4 parts A to 3 parts B. The remaining balance should be kept unmixed until required.

Zeroflame Clear Finish – this is a single pack spirit based varnish which requires thorough stirring before use. It is essential as a sealer to protect the Intumescent Base Coat.

ALL CONTAINERS MUST BE KEPT LIDDED WHEN NOT IN USE.

Application Methods: Apply Zeroflame Intumescent Base Coat in one even coat (wet film thickness 150 microns / 0.15mm) by brush, roller or spray. If spraying, thin Zeroflame Intumescent Base Coat no more than 10% water and use spray equipment operating at 1800 p.s.i. (120 bar) with a 15 thou (0.38mm) tip and 175-200mm fan. Do not thin except when spraying.

When the Zeroflame Intumescent Base Coat is dry, apply one even coat of Zeroflame Clear Finish (wet film thickness 100 microns / 0.10mm). Ensure that the complete surface is covered with Zeroflame Clear Finish.

Drying and Over coating Times:

<i>(at 20°C and 60% RH)</i>	<i>Zeroflame Intumescent Base Coat</i>	<i>Zeroflame Clear Finish</i>
Touch Dry	4-6 hours	1 hour
Hard Dry*	48 hours	4 hours
Overcoating	24 hours	N/A
Full Cure	7 days	2 days

* If application is not ‘in situ’ do NOT stack treated pieces at any time either between coats or when finished as the treated surface may be damaged or stick together.

Maximum fire retarding capabilities achieved after 7 days.

DIRECTIONS FOR USE cont...

Site conditions: Ambient temperatures: Not less than 7°C.
Surface temperature: 3°C or more above dew point.

Cleaning: Immediately after use, wash the application tools as follows:

- Zeroflame Intumescent Base Coat: with hot water
- Zeroflame Clear Finish: with white spirits

LIMITATIONS

Zeroflame Fire Retardant Varnish is for INTERNAL environments ONLY, and should not be used in areas exposed to external conditions or in areas subject to wide fluctuations in relative humidity (RH) or temperatures, such as:

- swimming pools
- saunas
- shower rooms
- bathrooms.

As an alternative, Zeroflame Fire Retardant Treatment is suitable for such environments.

Internal areas subject to fluctuating conditions such as kitchens or sun rooms, should be provided with sufficient ventilation to eliminate condensation; traditional extractor fans, normally adequate to remove odours or steam, rarely being sufficiently effective. High ceilinged rooms often provide a reservoir for damp air to condense unless ventilation is installed. If the installation of ventilation is impractical, Zeroflame Fire Retardant Treatment should be used.

Zeroflame Fire Retardant Varnish is not suitable for surfaces subject to wear, such as:

- handrails
- seating
- door sets
- stair treads, etc.

Zeroflame Fire Retardant Treatment should be used on such surfaces.

MAINTENANCE

Zeroflame Fire Retardant Varnish will provide on-going fire protection provided it is used on suitable environments and remains intact.

As environmental conditions may change or mechanical damage may be sustained, the Varnish should be inspected periodically and any damaged areas repaired immediately. If whitening, cloudiness or flaking occurs, exposure to excessive moisture is signified, the source of which should be traced and remedied as soon as possible to avoid further damage.

CERTIFICATION

Zeroflame Fire Retardant Varnish has been tested to BS 476 Parts 6 and 7.

It achieves Class 0 on timber surfaces when applied according to the manufacturer's recommendations.

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