

# zeroflame®

## FIRE RETARDANT TREATMENT

### TECHNICAL DATA

#### PRODUCT DESCRIPTION

Zeroflame Fire Retardant Treatment is an aqueous solution which achieves Euroclass B (BS Class 0) Fire Propagation and Spread of Flame fire protection on solid timber.

#### APPLICATION

Zeroflame Fire Retardant Treatment is a fire retardant system for the fire protection of hardwoods, softwoods and other cellulose based substrates. Zeroflame Treatment treated timber must only be used above the dpc level and/or above ground contact.

Trials should be carried out on decorative timber species to check any shade changes prior to the full application of the Treatment.

#### FEATURES

Zeroflame Fire Retardant Treatment is:

- Moisture resistant and unaffected by humidity
- Suitable for interior and exterior use
- Unaffected by wear
- Simple specification
- Suitable for non-specialist application
- Suitable for off-site application
- Applicable by brush, roller or spray
- Non-toxic and non-allergic
- Biologically and ecologically safe
- Colourless and odourless
- Non-leaching
- Maintenance free
- Does not require overcoating except for decoration

#### TECHNICAL DATA

Name	CAS No.	Symbol and Risk	Concentration %
<i>Ferric (III) phosphate</i>	10045-86-0	<i>Xi; R36/38</i>	30%
<i>Citric Acid</i>	77-92-9	<i>Xi; R36</i>	1%
<i>Polyoxyethylene (21) stearyl alcohol</i>	9005-00-9	<i>Xi; R41</i>	0.5%
<i>Water</i>	7732-18-5	-	68.5%

This product is classified Xi – Irritant: Irritates eyes and skin.

## DIRECTIONS FOR USE

- Substrate:** The substrate must be clean, dry and free from contamination; existing coats must be removed by stripping or sanding.
- Application:** Approximately 3 coats depending on application method and site conditions, giving a total coverage of minimum 270ml/m<sup>2</sup>. When treating Cedar, a minimum of 360ml/m<sup>2</sup> should be applied. Do not mix with other solutions, stir well.
- Use brush, roller, spray (use appropriate mask when spraying), dip or vacuum method.
- After treatment of the substrate with Zeroflame Fire Retardant Treatment, the appearance of the timber is virtually unchanged.
- Please Note: For both internal and external use it is recommended that a sample of the substrate is coated to establish both absorption properties and possible colour change, particularly when used externally without a protective finishing coat as moisture may create a change in colour.
- Drying Times:** Coats should be applied at intervals of 40-60 minutes.
- Drying time is 24 hours at 20°C.
- Fully cured after 7 days.
- Minimum temperature for application is 5°C.
- Do not apply to frozen substrate.
- Maximum fire retarding capabilities achieved after 7 days.
- Please note: Drying times are dependent upon the absorption characteristics of substrate and drying conditions. At low temperatures and/or conditions of high relative humidity, drying times will be extended.
- Overcoating:** Where a final decorative finish is required, a water borne, non-flammable varnish or wood stain may be used. The substrate must be fully dry before over coating. We advise checking the moisture content of the substrate prior to application and applying top coat to manufacturer's instructions. A small area of the substrate should be tested for compatibility before the full final coat is applied.
- Storage and Transportation:** Supplied in hermetically sealed containers and should be stored at temperatures above zero. The warranty period of storage is 2 years from date of manufacture.
- Protection Period:** Fire retardant properties will remain active for the lifetime of the substrate.
- Disposal:** Zeroflame Fire Retardant Treatment is an ecologically friendly material that can be safely disposed of as a household product.

## PRODUCT SPECIFICATION

Zeroflame Fire Retardant Treatment is a patented product.

Pack sizes: 5 litre

## LIMITATIONS

**Final Finish:** Natural. Can be overcoated with certain stains, varnishes and paints. (Contact Zeroflame for details of coatings which are suitable).

Zeroflame Fire Retardant Treatment achieves Class 1 only, on veneer and plywood laminates, the bonding glues resisting penetration. If Class 0 is required on such materials, Zeroflame Fire Retardant Paint is recommended.

Discolouration may occur on some types of timber or on heavily knotted wood. If this is a concern it is recommended that a sample area is completed before application to the whole project. Alternatively, application of a compatible varnish or stain may help to overcome this phenomenon if it is unacceptable.

Zeroflame Fire Retardant Treatment may not be suitable for wood-derived particle board or similar as it cannot penetrate. A sample test is recommended to check absorption. Zeroflame Fire Retardant Paint may be more suitable.

Care must be taken to comply with the coverage rate, including allowance for wastage, as inadequate application will affect the fire protection.

## CERTIFICATION

BS EN 13823 & BS EN 11925-2 Single Burning Item Euroclass B-s1-d0 (s1: Smoke Production, d0:

Flaming Droplets) (Equivalent to UK "Class 0" BS 476 Part 6/7)

NT 053 & NT 054 Accelerated weathering of fire retardant wood for fire testing.

Euroclass C (Equivalent to UK Class 1) for plywood.

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