

# Exterior Fire-X

Technical Data Sheet  
TDS 2366

## Exterior fire retardant for Timber

### DESCRIPTION

Exterior Fire-X is a fire retardant treatment for timber used in applications directly exposed to the weather or high humidity, outdoors as well as indoors.

Exterior Fire-X is supplied as a liquid concentrate and diluted solutions are applied to timber in an industrial, controlled treatment process using vacuum pressure impregnation, followed by kiln drying.

Exterior Fire-X reduces flame spread and maintains timber strength under fire conditions.

Various plywood and solid timber species treated with Exterior Fire-X have been tested by an accredited independent test facility in accordance with the European Classification BS EN 13501-1:2002 Fire classification of construction products and building elements.

With correct application, two levels of fire protection performance can be achieved depending on loadings

BS EN 13501-1:2002 Classification	Equivalent to BS476 Classification
Class B	Class 0
Class C	Class 1

### RECOMMENDATIONS FOR USE

Exterior Fire-X is for use only as a fire retardant for timber. Exterior Fire-X liquid concentrate is diluted with water to obtain a Treating Solution with a concentration between 15% and 19% m/m, according to the treatment specification.

Mixing of the product from the IBC should be with an automated dosing system. This requires minimal operator involvement and reduces exposure of the operator to the product. Information on the use of the system can be obtained from Koppers.

### Precautions

The handling and safety precautions shown on the Exterior Fire-X product label must be understood and followed. Use only as a fire retardant, and as described on the label.

Exterior Fire-X liquid concentrate is Corrosive. Causes burns. Harmful by inhalation, in contact with skin and if swallowed. Avoid direct contact with the substance. Wear suitable protective clothing (coveralls), and gauntlets and eye protection when using the product and during maintenance of treatment equipment. Wash splashes from skin or eyes immediately.

Do not breathe Exterior Fire-X liquid concentrate vapour. Ensure there is sufficient ventilation of the area.

In case of skin contact, eye contact or ingestion, refer to Safety Data Sheet for first aid measures to be taken immediately.

When using, do not eat, drink or smoke. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Do not contaminate watercourses or ground. Dispose of surplus chemical, contaminated materials (including sawdust) and the empty container safely using a method approved by the waste disposal authority.

See the product label and the Safety Data Sheet for further information.

### PROPERTIES

Colour: Opaque, colourless  
 Odour: Slight pungent odour  
 Flash Point: Not applicable  
 Density (g/cm<sup>3</sup>): 1.25 - 1.35  
 pH: 2 – 3

### PACKAGING and STORAGE

Supplied in 1173 litre IBC. Must only be kept in original packaging. Keep container tightly closed. Store in a cool, well-ventilated area. Keep away from combustible materials, and strong bases. Avoid using unprotected steel containers.

Exterior Fire-X concentrate should be stored in a designated, lockable area to prevent unauthorised access. Keep away from food, drink and animal feeding stuffs.

## Exterior Fire-X treating solution

### DESCRIPTION

Exterior Fire-X treating solution is a dilution with water of Exterior Fire-X liquid concentrate, to a concentration between 15% and 19% m/m.

It is applied to timber in an industrial, controlled treatment process using vacuum pressure impregnation.

### PROPERTIES

Colour: Opaque, colourless  
 Odour: Slightly pungent  
 Flash Point: Not applicable  
 Density (g/cm<sup>3</sup>): 1 - 1.2  
 pH: 3 – 4

## RECOMMENDATIONS FOR USE

### Timber

The timber to be treated shall be clean and dry, to allow penetration of the liquid, and not decayed by fungi or attacked by insects.

Wood-working (eg: planing, profiling) should be carried out before treatment. At the time of treatment the timber moisture content must be below the fibre saturation point (approximately 25% m/m) and should be at the moisture content appropriate for the end use of the treated timber.

All bands must be removed from the packs and timber must be loosely strapped down during treatment to allow penetration of the treating solution.

### Timber Treatment

Exterior Fire-X treating solution should be applied using a vacuum pressure impregnation plant operated in accordance with the Koppers Plant Operations Manual, to give an appropriate level of uptake in the wood.

The (COSHH) Control of Substances Hazardous to Health Regulations 2002 may apply to the use of this product at work. Engineering control of operator exposure must be used where reasonably practicable in addition to the following items of personal protective equipment. However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

Exterior Fire-X treating solution is harmful by inhalation, in contact with skin and if swallowed. Causes burns. Avoid direct contact with the substance. Wear suitable protective clothing (coveralls), and gauntlets and eye protection when in contact with the treating solution, when handling recently treated timber, and during maintenance of treatment equipment. Wash splashes from skin or eyes immediately.

Do not breathe Exterior Fire-X liquid concentrate vapour. Ensure there is sufficient ventilation of the area. Avoid the formation or spread of mists in the air. Do not breathe aerosol.

In case of skin contact, eye contact or ingestion, refer to Safety Data Sheet for first aid measures to be taken immediately.

When using, do not eat, drink or smoke. Wash hands and exposed skin before meals and after use.

Protect cuts and abrasions by means of a waterproof dressing. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Do not contaminate watercourses or ground. Dispose of surplus chemical, contaminated materials (including sawdust) safely using a method approved by the waste disposal authority.

See the product label and the Safety Data Sheet for further information.

### Kiln Drying of Freshly Treated Wood

Treated timber must be stickered to allow air flow over the timber, before being loaded into the kiln.

The temperature must not exceed 70°C during the drying cycle and 80°C during the curing cycle. Fans are used to circulate the heated air in and around the wood. The moisture content of the air is controlled by allowing ambient air (fresh air) to be exchanged with moisture laden air from the wood in the kiln.

## EXTERIOR FIRE-X TREATED TIMBER

### DESCRIPTION

Exterior Fire-X treated timber has been treated by the correct application of Exterior Fire-X fire retardant in an industrial, controlled treatment process using vacuum pressure impregnation, and then kiln dried.

Exterior Fire-X treated timber has been shown to perform well in the standard fire retardant tests ASTM E84, BS 476 Part 7 and BS EN 13501-1. Treated timber has maintained its fire retardant performance in the ASTM D2898 accelerated weathering test, used to approve exterior fire retardant treatments in the USA.

The flame retardant properties of Exterior Fire-X treated timber are unaffected by high humidity or exposure to weathering.

See the "User's Guide to Exterior Fire-X treated timber" for additional and important information.

### DISPOSAL

Treated timbers which are no longer usable, such as cut ends, broken boards, sawdust, or treated timber material taken out of service, may be disposed of in accordance with national and local regulations. For up to date information please contact the Technical Services Department.

### ADDITIONAL INFORMATION

Exterior Fire-X treated wood products are produced by independently owned and operated wood preserving facilities.

Koppers provides a range of products and technologies for the treatment, protection and enhancement of timber. Information and advice is available on all aspects of our products from the Technical Services Department.

For more information visit;

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