

Wood Protection Association Benchmark Quality Approval Scheme: Approved Flame Retardant Formulation



APPROVED PRODUCT: Koppers Exterior Fire-X

Formulation Type: WPA Type INT1 (Interior dry), INT2 (Interior humid), EXT (Exterior applications)

Application Method: Vacuum pressure impregnation with kiln drying of treated wood and wood-based board materials.

Approval Holder: Koppers Performance Chemicals UK, Fieldhouse Lane, Marlow SL7 1LS
Tel: 01628 486644 Email: kpc@koppers.eu

Approval Scope: This Certificate of Approval applies to **Exterior Fire-X** flame retardant and **Exterior Fire-X** treated wood and wood-based board materials for which suitable evidence of performance has been accepted by the independent Approval Panel for Flame Retardant Formulations operated by the WPA.

Exterior Fire-X is only approved for use in conjunction with a pressure impregnation process operating within the scope of a recognised quality assurance scheme (QAS) such as the WPA Benchmark scheme.

Period of Validity: Approval lasts for five years from the date of this Certificate of Approval.

Materials Certified: **Exterior Fire-X** flame retardant is approved to achieve Euroclass B or Euroclass B_{ROOF} level of performance on the materials listed below in [Table 1](#) and [Table 2](#).

Characteristics: [Table 3](#) of this certificate sets out the characteristics of **Exterior Fire-X** treated wood/wood-based materials.

Table 1: Euroclass B Performance

Exterior Fire-X is approved for treatment of the following materials to Euroclass B*

MATERIAL	THICKNESS	MATERIAL	THICKNESS
Softwood†	18mm and thicker	TM Frake	18mm and thicker
Douglas fir	18mm and thicker	Sweet chestnut	22mm and thicker
Spruce	18mm and thicker	Oak	19mm and thicker
Larch	20mm and thicker		

* Contact the manufacturer for further details if the material or thickness you wish to use is not included in the table or the full classification (e.g. B-s1, d0) is required

† Specifiers and users of softwoods other than those listed by name should contact Koppers for advice on treatment.

Table 2: Euroclass B_{ROOF} (t4) Performance

Exterior Fire-X is approved for the treatment of the following materials to achieve Euroclass B_{ROOF} (t4)

MATERIAL	THICKNESS
Western red cedar shingles	10mm and thicker

Table 3: Characteristics of Exterior Fire-X treated material(s)

Hygroscopicity:	Type INT2 classification in accordance with EN 16755 Maximum loading for INT2 classification: 132 kg/m ³
Durability in service:	Type EXT classification in accordance with EN 16755 Maximum loading for EXT classification: 134.3 kg/m ³
Strength:	Design value adjustments are recommended for timber treated with Exterior Fire-X in some situations. Contact Koppers Performance Chemicals for advice on design value adjustments
Smoke emission:	Not relevant in the UK for exterior use. Classified typically as smoke classification s1 or s2 according to EN 13501

Certificate of Approval

Koppers Exterior Fire-X



Approval Certificate no.:
WPA/PAS/FR/201601

Date of first issue:
1 March 2016

Date of this issue:
1 June 2020

Approval lasts for five years from the date of issue after which it will lapse unless the Approval Holder applies for a renewal review.

About the Wood Protection Association (WPA)

The WPA is a technical and advisory organisation concerned with the products and processes that improve the value and performance of wood as a sustainable, cost effective construction material – mainly through preservation, wood modification and flame retardant treatment.

The association provides guidance to specifiers, contractors, engineers and architects on the best ways to ensure wood is fit for its intended purpose. The WPA is a leading body in the UK on all matters relating to wood protection and has a respected voice with many British and European Standards setting agencies. The WPA's technical publications set the specification guidelines in the UK for industrial pre-treatment processes and are widely referenced by major architectural, building standards and landscaping bodies.

See the WPA Flame Retardant Specification Manual and many other useful Guidance Notes – available free to download from the Resource Centre of the Association's web site: www.thewpa.org.uk.

Benchmark Quality Approval Schemes - providing valid independent assessment and verification

The WPA administer three interlocking approval schemes which cover every stage in the production and distribution of flame retardant wood based materials. In each scheme, assessments and audits are conducted by independent experts.

The **WPA Benchmark Approved Formulation (FR)** scheme provides independent verification of the efficacy of a flame retardant formulation. It must be applied or added to wood based materials by a factory controlled process monitored under a recognised quality assurance scheme.

The data to be supplied in support of an application is clearly defined in a Scheme Document and is submitted to the WPA for assessment by an independent Efficacy Panel, which is drawn from leading organisations like Exova, BRE and private consultancy. The assessment includes: examination of fire test certificates and classification reports and; other characteristics that affect performance in service such as wood strength and smoke emission. The decision to approve a flame retardant is the responsibility of the Panel.

Approval lasts for five years from the date of issue on the Certificate of Approval after which it will lapse unless the Approval Holder applies to WPA for a renewal review.



Wood Protection Association

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