WPA Flame Retardant Approval Scheme Certificate of Approval

APPROVED PRODUCT: Koppers Exterior Fire-X

Formulation Type: WPA Type EXT (leach resistant)

REACH Compliance: REACH Compliance: Exterior Fire-X is in compliance with REACH

Regulation (EC) 1907/2006.

Approval Holder: Koppers Performance Chemicals UK, Fieldhouse Lane, Marlow SL7 1LS

Tel: 01628 486644 Fax: 01628 476757 Email: kpc@koppers.eu

Approval Scope: This Certificate of Approval covers Exterior Fire-X and Exterior Fire-X

treated wood and wood-based board materials for which suitable evidence of performance was endorsed by the independent Flame

Retardant Approval Panel appointed by WPA.

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

Benchmark FR scheme

Materials Certificated: Exterior Fire-X flame retardant is approved to achieve Euroclass B or

Euroclass $\boldsymbol{B}_{\text{ROOF}}$ level of performance on the materials listed in Table 1

and Table 2 in this Certificate.

Characteristics: Table 3 of this certificate sets out the characteristics of Exterior

Fire-X treated wood/wood-based materials.

Period of Validity: Approval last for five years from Approval Certificate issue.

Table 1: Euroclass B Performance

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

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

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(ES)
Western red cedar shingles	10mm and thicker

^{*} Contact the manufacturer for further details if the materials or thickness is not included in the table

† Specifiers and users of other softwoods should contact Koppers for advice on treatment.



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Table 3: Exterior Fire-X-treated wood and wood-based materials have the following characteristics

Hygroscopicity	Type INT2 classification confirmed in accordance with WPA criteria. Maximum loading for INT2 classification: 73 kg/m³.
Durability in service	Meets the performance requirements of the WPA Flame Retardant Specification Manual Industrial Flame Retardant Treatment of Solid Timber and Panel Products for classification as EXT after accelerated weathering. Maximum loading for EXT classification: 59 kg/m³.
Strength of treated wood	Design value adjustments are recommended for timber treated with Koppers 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 EN13501.

About the WPA

The Wood Protection Association (WPA) is a technical and advisory organisation specialising in the products and processes that improve the value and performance of wood as a sustainable, low environmental impact construction material.

The WPA acts as a principal technical advisor to BSI in setting British Standards relating to wood preservation, wood modification and fire-protection. The WPA's technical publications set the specification benchmark in the UK for industrial pre-treatment processes and are widely referenced by major architectural, building standards and landscaping bodies.

The WPA's Flame Retardant Specification Manual and Checklist is available as a free download from the publications section of the Associations web site: www.wood-protection.org

Product and Process Quality Assurance

The WPA operates third-party approval schemes for both an individual flame-retardant product as well as the industrial process used in its application. The two schemes run in conjunction with one another and are both mandatory requirements of the WPA's quality assurance regime for flame retardant treated wood and wood-based materials. WPA approved flame retardants must be applied by WPA approved industrial processes.

Product Approval Scheme: This require submission to WPA of a products fire test data and fire performance classification report(s). The decision to approve a flame retardant is the responsibility of an independent panel of experts (the Approval Panel) drawn from leading organisations like Exova, BRE and private consultancy.

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

Process Approval Scheme: This scheme is known as the WPA Benchmark FR quality assurance scheme. It provides third-party verification that a flame retardant approved by WPA is being applied correctly to ensure the fire performance specified is achieved.

Certificate No: WPA/PAS/FR/201601 Date of first approval: 1/3/2016 Date of this issue: 1/3/2016

Issued by:

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