

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



**APPROVED PRODUCT:** Koppers FirePRO

**Formulation Type:** WPA Type INT2 (humidity resistant)

**Application Method:** Vacuum pressure impregnation with air or 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 **FirePRO** flame retardant and **FirePRO** 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.

**FirePRO** 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:** **FirePRO** flame retardant is approved to achieve Euroclass B or Euroclass C 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 **FirePRO** treated wood/wood-based materials.

## Certificate of Approval

**Koppers FirePRO**



**Table 1: Euroclass B Performance**

FirePRO is approved for treatment of the following materials to Euroclass B\*

MATERIAL	THICKNESS
Western red cedar†	17mm and thicker
Softwood plywood**	12mm and thicker
Birch plywood	25mm

**Table 2: Euroclass C**

FirePRO is approved for the treatment of the following materials to achieve Euroclass C\*

MATERIAL	THICKNESS
Softwood plywood**	9mm and thicker
Birch plywood	12mm
Spruce	38mm

\* Contact the manufacturer for further details if the materials or thickness is not included in the tables

\*\* Specifiers and users wishing to use plywood manufactured from softwood must check with Koppers that the test data supporting this entry is relevant to the species used for that plywood

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

**Table 3: Characteristics of FirePRO treated material(s)**

Hygroscopicity:	Type INT2 humidity classification confirmed in accordance with ASTM D3201.94
Durability in service:	WPA Type INT2-treated wood maintained fire performance after 21 years in test (TRADA long-term programme started 1986). The chemicals in Koppers FirePRO indicate at least this level of durability in INT2 service conditions.
Strength of treated timber:	No significant change from untreated for structural calculations.
Smoke emission:	Acceptable on UK railways.
Smoke toxicity:	Acceptable on UK railways.
Metal fixings and fastenings	Metals suitable for use with untreated wood and wood-based materials may be used with FirePRO treated material when used in the same in-service conditions.

Approval Certificate no.:  
**WPA/PAS/FR/201301**

Date of first issue:  
**1 July 2018**

Date of this issue:  
**1 August 2023**

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.

Many useful Guidance Notes are available free to download from the Resource Centre of the Association's web site: [www.thewpa.org.uk](http://www.thewpa.org.uk).

### Benchmark Quality Approval Schemes - providing valid independent assessment and verification

The WPA administers 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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