

# WPA Flame Retardant Approval Scheme

## Certificate of Approval



Wood Protection Association

FLAME RETARDANT  
APPROVAL SCHEME

### Certificate of Approval



**Approval Certificate:**

**WPA/PAS/FR/201301**

**Date of first issue:**

**1 July 2013**

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#### 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 Fax: 01628 476757 Email: kpc@koppers.eu
- Approval Scope:** This Certificate of Approval covers FirePRO and FirePRO 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.  
FirePRO 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:** FirePRO flame retardant is approved to achieve Euroclass B or Euroclass C 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 FirePRO treated wood/wood-based materials.
- Period of validity:** Approval last for five years from the date of Approval Certificate issue.

#### Table 1: Euroclass B Performance

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

MATERIAL	THICKNESS(ES)
Western red cedar†	17mm and thicker
Softwood plywood**	12mm and thicker
Far eastern plywood	5.5mm and thicker
Birch plywood	25mm

#### Table 2: Euroclass C Performance

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

MATERIAL	THICKNESS(ES)
Softwood plywood**	9mm and thicker
Far Eastern plywood	12mm and thicker
Birch plywood	12mm
Spruce	38mm

\* 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.

\*\* 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

Table 3: FirePRO-treated materials have the following characteristics

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.
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.
Strength of treated timber	No significant change from untreated for structural calculations.
Smoke emission	Acceptable on UK railways.
Smoke toxicity	Acceptable on UK railways.

#### 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](http://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 requires submission to WPA of a product's 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.

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#### Issued by:

Wood Protection Association  
 5c Flemming Court  
 Castleford  
 West Yorkshire  
 WF10 5HW  
 Tel: 01977 558274  
 E-mail: [info@wood-protection.org](mailto:info@wood-protection.org)



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