



*FIRE RETARDANT TREATED TIMBER
FOR EXTERIOR OR SEVERE DAMP SITUATIONS*

Unique fire protection

Fire can devastate buildings and lives in a matter of minutes. Protecting against the threat and effects of fire is vital. NON-COM Exterior fire retardant treated timbers have a proven track record of reducing the surface spread of flame and the effects of heat and smoke release to provide real assurance and extra time for escape and damage limitation.



FIRE RETARDANT TREATED TIMBER
FOR EXTERIOR OR SEVERE DAMP SITUATIONS

When fire takes hold, time is everything.



CASTLEFORD TREATMENT CENTRE



4



5



6



Fire Retardant Treated Timber and Sheet Material for Exterior or Severe Damp Situations

- The only UK Wood Protection Association (WPA) listed status type LR (leach resistant) fire retardant product for the protection of exterior timbers and sheet materials.
- Commercially proven, global brand, backed by extensive independent certification and more than 40 years of fire performance experience.
- Produced in a stringently controlled, factory process at a specialist treatment centre – the only one of its type in the UK, operating with ISO 9001 and ISO 14001 accreditations.
- Classified as suitable for exterior use under prEN 15912 - the draft European standard on fire retardant durability.
- Impregnated on all faces with no need to re-apply fire retardant throughout the life of the timber.
- Provides consistent, reliable performance; dramatically slows down fire spread and reduces heat and smoke generation; saves lives and restricts fire damage costs.
- Proven stability - non hygroscopic and non efflorescent treatment; treated timber can be painted or glued.
- Provides greater design flexibility with timber - nature's own, sustainable material.



FIRE RETARDANT TREATED TIMBER
FOR EXTERIOR OR SEVERE DAMP SITUATIONS

Precious minutes can mean the difference between life or death.

Ensuring an effective fire protection specification is vital; it can be a matter of life or death. Specifiers have a duty of care to ensure that fire performance in a building is not compromised.

NON-COM Exterior treated timbers and sheet materials have a proven track record and can be used with real confidence for all exterior or severe damp applications.

What is NON-COM Exterior?

NON-COM Exterior treated timber and sheet materials have been impregnated with NON-COM Exterior fire retardant under controlled conditions in vacuum pressure timber impregnation plant, followed by a kiln drying and high temperature curing schedule to return the timber to an acceptable or specified moisture content.

NON-COM Exterior fire retardant is an advanced polymer based formulation, free from halogenated compounds. It is a listed type LR (leach resistant) treatment in the UK Wood Protection Association (WPA) Manual.

What does NON-COM Exterior do?

When subjected to fire, the fire retardant ingredients in NON-COM Exterior treated timber react with the combustible gases and tars normally generated by untreated wood, and convert them to carbon char, carbon dioxide and water. The insulating layer of char formed retards the process of combustion.

- Dramatically reduces flame spread and heat release to allow people more time to escape a fire and limit fire damage.
- Low smoke generation – smoke inhalation is the primary cause of death in fires.
- Substantially extends the period before 'flashover' occurs - the simultaneous ignition of the combustible materials in a confined space.
- Proven fire performance in action, saving buildings and reconstruction costs.

More reasons to have confidence

- Listed in the UK WPA Fire Retardant Manual as a LR (leach resistant) industrial treatment for exterior timbers. Provides a durable fire performance with or without a coating, allowing exterior materials to weather naturally as untreated timber. Classified as an EXT fire retardant for exterior applications in accordance with the draft European standard (prEN 15912) on fire retardant durability.
- Proven stability. The ingredients used in the NON-COM Exterior process are non-hygroscopic, so overcoming many of the disadvantages of conventional fire retardants. The processed materials can be used in situations where high and fluctuating relative humidities are a problem.
- Excellent structural / mechanical properties. Independent tests at the Building Research Establishment have shown that there is no loss of strength in the modulus of rupture or the modulus of elasticity as a result of NON-COM Exterior treatment of timber.



- Provides enhanced biological durability to the treated timber, without the need for additional treatments.
- Low corrosion. NON-COM Exterior treated timber has been tested for corrosive action on mild steel, galvanised steel, aluminium, brass and copper and it has been shown that it does not contribute to the corrosion rates of these metals. NON-COM Exterior treated timber performs considerably better than conventional inorganic salt based fire retardant systems in this respect.

Fire certification

- Fully tested in accordance with European Standards (Euroclasses) under the Construction Products Directive and classified in accordance with EN 13501-1.
- Fully tested to BS 476, Part 6 'Fire Propagation Test' and Part 7 'Surface Spread of Flame'.



Produced with quality in mind

- Treatment and third party auditing to the highest level of accreditation. Arch operates the only fire retardant treatment site in the UK that complies with ISO 9001 and is further supported by ISO 14001, CE and WPA quality scheme requirements.
- Audited factory production control systems are a requirement for CE marking.
- Treatment provides a consistent and assured protection, which may not be achieved with the use of brush applied fire retardant products.



NON-COM Exterior fire retardant treatment is unique in providing the ultimate protection and ensures that extra time is available.

Standards

The performance normally required for external cladding and external structures is either:

Euroclass B or Euroclass C in accordance with BS EN 13501-1, as appropriate.

Compliance with UK Building Regulations may be demonstrated by conducting either European Standards with Euroclasses or national test methods, i.e. in line with British Standards.

Once treated, Euroclass B/C treated timber cannot be sold as Class 0/1 respectively, and vice versa.

For cedar shingles/shakes and Yorkshire boarding, treatment is to BS 476: Part 3 AA/P60 Roof Penetration Test.

C E marking

NON-COM Exterior treated materials can be CE marked when applicable. We suggest that you discuss your specific requirements with us directly.

Specifications

Some typical end uses examples include:

- Exterior cladding
- Exposed structural timbers
- Staging
- Cedar shingles and shakes.

For specification of external cladding and external structures the following wording is recommended:

The timber as detailed....*(insert species, type, grade, quantity, dimensions)* is to be used in....*(insert end use description or description of component)* and is to be vacuum pressure impregnated with NON-COM Exterior fire retardant and subsequently kiln dried and heat cured in accordance with the NON-COM Exterior manufacturer's specification to meet....*(enter appropriate standard and treatment class)* with a fair moisture content on despatch of 13-19%*.

For specification of shingles or shakes used in a roof situation the following wording is recommended:

The timber as detailed....*(insert name, type, grade, dimensions and volume)* is to be vacuum pressure impregnated with NON-COM Exterior fire retardant and subsequently kiln dried and heat cured in accordance with the NON-COM Exterior manufacturer's specification to meet....*(select class: Class 1 Surface spread of Flame Rating in accordance with BS 476: Part 3 with a fair moisture content on despatch of 13-19%* or Class 0 BS 476: Parts 6 & 7 in accordance with BS 476: Part 3 AA/P60).*

* 13-19% is the normal level provided with NON-COM Exterior treatment. Please state if the moisture content needs to be different to this.

Full assistance with specification writing is available on request.

Contact us as early as possible in the design phase and we can work together to prepare a specification that fully supports your needs. For NBS Plus users, specification clauses are available for our products. Please contact us to confirm details.

Arch Timber Protection offers specifiers a CPD technical presentation on fire retardant treatments for timber.

For further information contact Arch on 01977 714000.



Suitable timbers and sheet materials

A wide range of timber species and sheet materials can be treated with NON-COM Exterior fire retardant.

Performance is fully backed by independent test certificates and European classification reports for solid timber and sheet materials of different species, thicknesses and particular end use situations. We advise you to contact us with your requirements and we will explore what options are available for you.

Producing NON-COM Exterior treated timber and sheet materials

NON-COM Exterior fire retardant is factory applied under controlled conditions in a vacuum pressure timber impregnation plant, followed by kiln drying and heat curing to return the timber to an acceptable or specified moisture content.

The treatment process operates with ISO 9001 and ISO 14001 accreditation and conforms to the WPA Quality Scheme for fire retardants.

Availability

Treatment is only available from Arch Timber Protection's Service Treatment Centre at Castleford. Where required, timber materials can be supplied to specification in addition to treatment. It is advisable to contact Arch Timber Protection for advice on lead times well before the timber products are required on-site.

Further Documentation

A Code of Practice and Technical Information Sheets for NON-COM Exterior fire retardant treated timber are available on request.



9



10



11

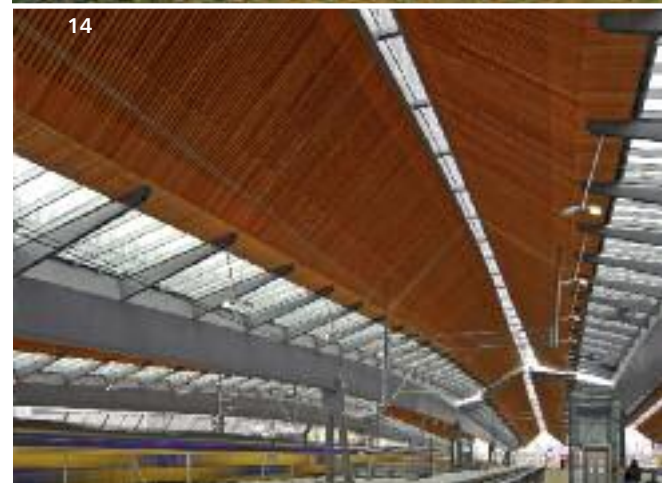
12



13



14



15



16



17



UniQue FIRE PROTECTION FOR TIMBER



**FIRE RETARDANT TREATED TIMBER
FOR EXTERIOR OR SEVERE DAMP SITUATIONS**



**FIRE RETARDANT TREATED TIMBER
FOR INTERIOR & WEATHER PROTECTED SITUATIONS**



FIRE RETARDANT FRAMING TIMBERS



18



Photographs

- 1 Laan van Orden apartments, Holland.
- 2 Health Centre, Partick.
- 3 Globe Theatre reconstruction, London.
- 4 Motorway Services, Wetherby.
- 5 Q-Park complex, Glasgow.
- 6 Lee-on-Solent School, Hampshire.
- 7 Battlefield Visitor Centre, Culloden.
- 8 Shornewood Country Park, Kent.
- 9,10,11 Kielder Observatory, Northumberland.
- 12 La Frégate Café, Jersey.
- 13 The Postbox Apartments, Birmingham.
- 14 The Bijlmer Arena, Amsterdam.
- 15 Alan Higgs Sports Centre, Coventry.
- 16,17,18 Robin House Children's Hospice, Balloch.

Members of



**Arch
Timber
Protection**

Wheldon Road, Castleford, West Yorkshire, WF10 2JT.

Telephone [01977] 714000 Fax [01977] 714001

e-mail advice@archchemicals.com

www.archtp.com



BS EN ISO 14001
Reg No EMS 539413



BS EN ISO 9001
Reg No FM 1636

Arch Timber Protection updates its literature as and when necessary. Please ensure you have an up to date copy.

Whilst every attempt has been made to ensure the accuracy and reliability of the information contained in this document, Arch Timber Protection gives no undertaking to that effect and no responsibility can be accepted for reliance on this information. Because it is the policy of Arch Timber Protection to continuously monitor and improve its products, we reserve the right to change product formulae and treatment cycles without notice.

© DRICON, NON-COM and VACSOL are registered trademarks of Arch Timber Protection.
© Arch Timber Protection 2011.