Tried, Tested and Trusted
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.
When fire takes hold, time is everything.

- Fully in line with the National House Building Council (NHBC) standards for fire retardant impregnation treatment of exterior timber cladding.
- Fully tested by Exova Warrington Fire Research with independent Euroclass Classification Reports for each timber species and timber thickness, for use with or without air gaps - EN 13501-1.
- UK Wood Protection Association (WPA) approved status type EXT (leach resistant) fire retardant product for the protection of exterior timbers.
- Quality accredited through the UK Wood Protection Association FR Benchmark certification scheme.
- Compliant with European FR Durability Standard EN16755.
- Impregnated on all faces with no need to re-apply fire retardant throughout the life of the timber.
- 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.
- Commercially proven, global brand, backed by extensive independent certification and more than 40 years of fire performance experience.
- Provides consistent, reliable performance; dramatically slows down fire spread and reduces heat and smoke generation; saves lives and restricts fire damage costs.
- Provides greater design flexibility with timber - nature’s own, sustainable material.
What is NON-COM Exterior?
NON-COM Exterior treated timber has 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 an approved type EXT (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.

Can you coat NON-COM Exterior treated timber?
NON-COM Exterior treated timber is designed for external applications with no requirement for a protective surface coating.

More reasons to have confidence
- Approved in the UK WPA Fire Retardant Manual as a type EXT (leach resistant) industrial treatment for exterior timbers. The long term durability of fire performance for NON-COM Exterior treated timber has been confirmed to be maintained following exposure to the accelerated weathering regime detailed in American Standard Test Method ASTM D2898. It is classified in accordance with Nordic Test method NT Fire 054 as a Durability of Reaction to Fire “DFR Class EXT” fire retardant, meeting the requirements of Nordic standards for use in all exterior applications. It is compliant with the new European Fire Retardant Durability Standard EN16755 holding a DRF EXT classification making it suitable for full exterior exposed end uses.
- Proven stability. NON-COM Exterior has been assessed as non-hygroscopic in line with the performance requirements of current FR Durability Standards.
- Enhanced biological durability. It is anticipated that NON-COM Exterior will offer a 30 year Desired Service Life to the treated timber through a process of wood modification, 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 the most up to date European Standards (Euroclasses) under the Construction Products Regulation and classified in accordance with EN 13501-1. Euroclass C/B fire performance can be achieved for a wide range of timber and plywood species. Contact Lonza for more information.

Produced with quality in mind
- Treatment and third party auditing to the highest level of accreditation. Lonza 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.
Standards
The fire performance typically required for external cladding and external structures is either:

- Euroclass C or Euroclass B in accordance with EN 13501-1, as appropriate.
- Euroclasses C and B are accepted by UK Building Regulations for timber in place of the National Standards of Class 1/0.

Once treated, Euroclass C/B treated timber cannot be sold as Class 1/0 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
In line with the requirements of the Construction Products Regulation from July 2013 certain fire retardant treated timber and plywood commodities may need to be CE marked. Please contact Lonza for further details.

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 in accordance with BS 476: Part 3 AA/P60 rating.

* 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.

Lonza offers specifiers an approved CPD technical presentation on fire retardant treatments for timber.
For further information contact Lonza on 01977 714000.
Photographs
Front cover - main shot  Car parking garage, Netherlands.
1  Laan van Orden apartments, Netherlands.
2  CarltonLight housing, UK
3  The Rock Shopping Centre, UK.
4  Brede School Fijp Westendorp, Netherlands.
5  Highfields & Penn Fields School, UK.
6  Skagenberg House, Sweden.
7  Battlefield Visitor Centre, Culloden, UK.
8  Bilston Academy, UK.
9, 10, 11 Kielder Observatory, UK.
12, 13 Hotel complex, Eastern Europe.
14  The Bijlmer Arena, Netherlands.
15  Villa Suikerkamp, Netherlands.
16, 17, 18 Robin House Children’s Hospice, UK.

© Copyright September 2017 Lonza.
™ Dricon and Non-Com are registered trademarks of Arch Timber Protection, a Lonza company.
Disclaimer: Whilst every attempt has been made to ensure the accuracy and reliability of the information contained in this document, Lonza gives no undertaking to that effect and no responsibility can be accepted for reliance on this information.
Lonza updates its literature as and when necessary.
Please ensure you have an up to date copy.

Lonza Wood Protection
Wheldon Road, Castleford, West Yorkshire, WF10 2JT.
Tel: +44 (0)1977 714000  Fax: +44 (0)1977 714001
Email: timberprotectionadvice.ukca@lonza.com  www.lonzafiretreatments.eu