

Superior Fire Protection from Lonza ...that goes **into** timber, not **onto** timber



FIRE RETARDANT TREATED TIMBER
AND PANEL PRODUCTS



FIRE RETARDANT
TREATED TIMBER

June 2012

Our fire retardant impregnation treatments for timber enable specifiers to produce creative designs using a sustainable, aesthetic material that is fully compliant with the requirements of UK Building Regulations.

When it is identified that fire protection is required for timber cladding there is a clear choice of **industrially applied impregnation treatments** or **coating products**.

Impregnation can offer a number of benefits over fire retardant coatings. The key points to consider when specifying and selecting are: **availability and cost; product performance and assurance; durability and maintenance; quality of application.**

AVAILABILITY AND COST

The cost and time associated with maintaining fire retardant coatings on commercial buildings can be substantial. Specifications for industrially applied fire retardant treated timbers maybe overturned for 'quick fix' coatings products because of tight deadlines and schedules.

Typically, the initial cost of pressure impregnated fire retardant treated timber may be more than the cost of brush or spray applied coating systems. However the maintenance often required for fire retardant coatings means that in the long term impregnation treatments provide a far more cost effective option, see opposite.

Professionally applied pressure treatments can take around 4 weeks to apply but do provide superior, long term performance. It is important that this time is allowed in any specification time frame.

A number of leading timber merchants are now offering readily available stocks of popular species and profiles of pressure treated fire retardant timber cladding. Contact Lonza directly for details of these suppliers.

Cost Comparison of FR impregnation treatment vs. FR coating over a 30 year period



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PERFORMANCE AND ASSURANCE

Both industrially applied pressure treatments and coating fire retardants for timber claim to offer both Euroclass B or C rating to EN 13501-1.

EN 13501-1 - Fire classification of construction products and building elements

EUROCLASS	TYPICAL PRODUCTS
B	Highest possible level for fire retardant treated wood products. Required for cladding timbers used in escape routes, staircases and exterior applications.
C	Fire retardant treated wood products. Required for cladding timbers on general walls and ceilings.
D	Equivalent to untreated wood products.

However, to comply with EN 13501-1, Classification Reports from an independent notified testing body are now a definite requirement. The description of the product or treatment given in the Classification Report has to be comparable with the exact specification of the timber components to be used in the project.

For example, if a Classification Report for a fire retardant product or treatment refers to Euroclass B being achieved on 25mm thick larch cladding boards tested without an air gap on plasterboard, then the product cannot be assumed to confer the same reaction-to-fire performance for:

- Timbers less than 25mm thick
- Alternative species
- With an air gap in place
- Other backing materials deemed to be of higher risk

The priority is to check with your supplier if they have a relevant and specific Classification Report to match the species and thickness of timber to be used. Independent testing of some fire retardant coating products that claim either Euroclass B or C rating have shown a protection more in line with Euroclass D - **the equivalent of untreated timber.**

DURABILITY AND MAINTENANCE

Selecting a durable, maintenance free fire retardant protection for timber cladding is a key requirement. Compliance with the draft European Standard on durability - **TS 15912** - is a must. Within this Standard, Lonza treatments for interior cladding timbers meet the INT2 classification. Treatments for exterior cladding timbers should meet the EXT classification. Meeting these classifications will ensure that the treated product is fit for purpose in the long term.

Pressure impregnated pre-treatment provides permanent fire protection within the timber structure that will not require maintenance. Coating products sit on the surface of the timber and will require regular maintenance. Also once fixed in position, any maintenance required to the reverse of coated cladding would be extremely difficult.

QUALITY OF APPLICATION

If fire retardant treatments are required for new timbers going into a building then by far the most effective long term option is pressure impregnation treatment. The application and maintenance of fire retardant coating products can be open to question and even misuse. Fire performance can only be assured when the application is carried out under an independent certification and accreditation scheme.



Lonza's ISO 9001 and ISO 14001 accredited fire retardant treatment facilities at Castleford, West Yorkshire.

Fire retardant impregnated cladding timbers have a controlled, highly effective and permanent built-in protection that is automatically applied to all faces of the timber. Pressure treatments also leave the natural appearance of the timber virtually unchanged, where as some coating products can be aesthetically unattractive.



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CE marking of fire retardant impregnated timber cladding requires a rigorous, independently audited production control system. ISO 9001 accreditation specific to the relevant European Standard will ensure the requirements for CE marking are satisfied by the treater.

Also, for a supplier to be listed in the UK Wood Protection Association quality scheme for fire retardant treatments they again require ISO 9001 accreditation.

Fire Retardant Impregnation Treatments

- Permanent protection - no maintenance required.
- Controlled treatment process - consistent and assured results.
- Deep penetration of treatment on all faces - front, back and edges.
- Leaves natural finish to the timber.



Fire Retardant Coating Protection

- Coating will need future maintenance to keep fire protection.
- Brush/spray applications - inconsistent results.
- Reverse of boards may be uncoated and unprotected. If coated, maintenance is impossible.
- Coatings cover the natural beauty of the timber.



In summary, if you require a quality fire retardant protection for either interior or exterior timber cladding that you can have real confidence in, then Lonza Wood Protection proven pressure impregnation treatments provide the answer.

PROVEN FIRE PROTECTION

Lonza Wood Protection offers a choice of proven pressure impregnated fire retardant treatments for cladding timbers. Both DRICON and NON -COM Exterior treatments are supplied through our ISO 9001 and ISO 14001 accredited treatment facilities at Castleford, West Yorkshire. The company is also listed in the UK Wood Protection Association (WPA) quality scheme.

DRICON

- WPA approved humidity resistant fire retardant treatment for interior and weather protected exterior cladding timbers.
- The **only** BBA approved fire retardant protection for timber - certified for over 25 years.



NON-COM EXTERIOR

- WPA listed leach resistant fire retardant treatment for exterior cladding timbers without the need for a coating protection - over 40 years of proven commercial use.
- The **only** fire retardant impregnation treatment accepted by NHBC for exterior timber cladding giving exceptional durability and performance in excess of 30 years.

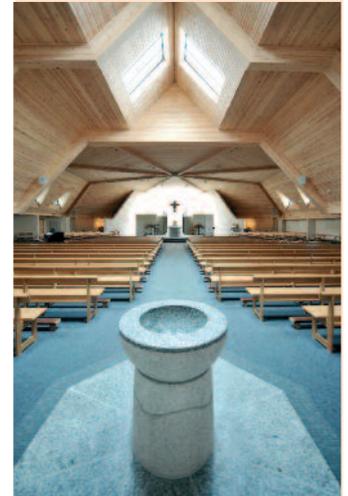


Both treatments have independent Euroclass Classification Reports for a wide range of timber cladding species and thicknesses.

Also both DRICON and NON-COM Exterior treated timbers demonstrate proven durability in terms of fire protection and meet the requirements of TS 15912.

DRICON is classified as an INT2, the highest possible classification for an internal product and also as an EXT for exterior applications under a well maintained protective coating. NON-COM Exterior is classified as an EXT fire retardant for exterior applications without the need for a protective coating.

In 2007 results of an independent 21 year exposure study with DRICON and NON-COM Exterior fire retardant treated timbers confirmed that the initial fire performance characteristics of the timbers had been maintained over this period.



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