NEWS RELEASE

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Building designers urged to use new Fire Retardant Specifiers Checklist

The Wood Protection Association (WPA) is calling for building designers to double check the fire performance credentials of timber flame retardant treatments to ensure they really are fit for the application required. To support the call the WPA has produced a *Fire Retardant Specifiers Checklist* to help designers make sure they get it right.

"The WPA Specifiers Manual for fire retardants has set the standard in the UK for the specification of treatments for many years" according to WPA Director, Steve Young, who emphasises that the *Fire Retardant Specifiers Checklist* is new guidance now being published by the WPA in the interests of safety. The Checklist will form part of a new Fire Retardant Manual to be published by the WPA later this year. As part of the Manual, the WPA lists products that are backed fully by independent test results and reports from accredited bodies.

WPA urges specifiers to review their fire protection specifications based on the following guidance:

Wood Protection Association Fire Retardant Specifiers Checklist
Fire safety is a critical factor in building design. With the increasing use of wood as a low carbon sustainable construction material it is vital that any fire retardant treatment required in a building provides long-term, predictable protection backed by independent verification.

The following checklist has been produced by the WPA as a useful guide when assessing the suitability of one fire retardant product against another:

1. What fire performance is required?

2. What fire performance properties are claimed by a specific product?

3. Is performance to Euroclass B or C required?

If performance according to a European Standard is required (typically Euroclass B or C)*, the following key documents should be obtained to support the choice of treatment:

3.1 Classification Report(s) from a Notified Body according to BS EN 13501. These will state, based on data from tests to BS EN 13823, the fire performance of the FR treated timber (eg Class B, s1, d0, where 'B' is the class achieved, 's' is the smoke rating and 'd' is the burning droplets rating).

This report will also specify a field of application to which the classification applies by defining the species of timber eg spruce and the allowed variation in thickness eg 12 to 25mm etc.

WPA recommends strongly that the description of the product given in the classification report is compared with the specification of the timber components to be used in the project and the design of the structure to ensure the classification in the report can be taken to apply to the timber to be used in the project.

***Example**:* If a Classification Report refers to Euroclass B, s1, d0 being achieved on 25mm thick spruce boards tested without an air gap, then the product cannot be assumed to confer the same reaction-to-fire performance on for example 18mm thick larch cladding in a structure with an air gap between the boards and the main structure of the building (unless an accompanying Extended Application Report, *see 3.2 below,* indicates the classification is applicable to those circumstances).

3.2 Extended Application Report which provides the test evidence and its assessment which defines the product family or range of substrates and thicknesses to which a classification report can apply.

4. Is performance to BS 476 Part 7 and/or Part 6 required

If performance according to BS 476 Part 7 and/or Part 6 is required (typically Class 1 or Class 'O')* the key documents that must be examined are test reports showing the performance to the required standard of treated substrate similar to that which it is desired to use.

Class 'O' is an artificial class specified in UK Building Regulations requiring a particular performance in both BS 476 Parts 6 and 7. Supplementary reports are sometimes produced to draw together the data from BS 476 Parts 6 and 7 although these are not normally necessary in regulatory terms but do provide reassurance about the specification.

*** NOTE: If the specification calls for Class 1 or Class 'O'** (or indeed any other BS 476 class) it should be understood that a product having only a Euroclass rating as described in 3 above cannot be taken as being equivalent to Class 1 or Class 'O'; nor in the same way can a BS 476 class be taken as being equivalent to a Euroclass. The two methods of test and interpretation of the results are entirely different.

5. Flame retardants for internal high humidity uses (Wood Protection Association Type HR)

Evidence should be provided of compliance with the hygroscopicity test in prEN 15912. This ensures that in-service exposure to high humidity will not degrade the fire performance or cause surface disfigurement.

6. External flame retardant treatments (Wood Protection Association Type LR)

Where external applications are concerned, evidence should be provided of accelerated weathering tests showing adequate performance after weathering. prEN 15912 indicates the requirements for maintenance of performance after weathering.

7. Quality Assurance

Manufacture of flame retardant products and their application to timber should be under a third party quality assurance scheme, ideally according to ISO 9001. WPA requires that any factory-impregnation flame retardants and processes listed by the Association meet these quality requirements.

In contrast, products for surface application depend on correct application rates and/or film thicknesses being achieved. When such products are applied by brush or spray on site, fire performance can only be assured when application is under an independent certification and accreditation scheme for installers.

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Notes for editors:

1. Experience over many years demonstrates that wood can be used with complete confidence in fire critical applications so long as it has been properly treated with a product appropriate to the application.

2. A 21-year field test project funded by the WPA and carried out by leading fire test laboratories confirms no loss of performance for industrially impregnated products – details available on request.

3. The WPA Manual – Industrial Fire Retardant Treatment of Solid Timber and Panel Products is available in a CD format for £25.00 including postage and packing.

4. The WPA is an independent, not for profit, technical and advisory body involved in the development and promotion of wood protection technology to enhance the use of wood as the sustainable, low environmental impact material of choice.