

Timber Flame Retardant Specification Check-list

This check-list provides a step by step guide to ensuring that fire retardant treatments for wood-based materials are fit for purpose. Further guidance on the fire protection of wood is available in the WPA FR Specification Manual, available free of charge via <http://www.wood-protection.org/publications>

Step 1: Specify the Fundamentals

What fire performance is required - Euroclass B or C? [See WPA FR FAQ Factsheet 2](#) for further details.

What is the service environment for the FR wood-based product - internal dry (INT 1), internal humid (INT 2) or external (EXT)? [See WPA FR FAQ Factsheet 3](#) for further details.



Step 2: Verify the product's performance credentials

What fire performance properties are claimed by the manufacturers of the products being considered? All performance claims should be independently verified.

Check and establish that the claims made by the manufacturer reflect the performance required and the end use service environment in Step 1. The WPA operates an independent approval scheme for FR Products and performance data can be found in the certificate for each approved flame retardant. Details of all WPA Approved Flame Retardants and Benchmark FR treaters can be found via <http://www.wood-protection.org/fire-protection/quality-scheme>



Step 3: Make sure you get what you specified – the Audit Trail

If performance in accordance with a European Standard is required, the evidence overleaf should be obtained to support the product choice.

Always select a flame retardant with a verifiable performance. If no Classification and/or Extended Application Report is available, then choose another product where the required performance can be verified.

Effective fire retardance is safety critical – insist on the right product for the job.

AUDIT TRAIL REQUIREMENTS

Classification Report(s) from a Notified Body in accordance with BS EN 13501

These will state, based on data from tests to BS EN 13823 and EN ISO 11925, the fire performance of the FR treated timber (e.g. 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 wood or wood-based material e.g. spruce and the allowed variation in thickness e.g. 12 to 25mm etc.

PLUS EITHER

CE Mark & Declaration of Performance

Where the flame retardant is added in the factory during the manufacturing process for MDF, OSB or plywood or as a post-manufacture factory-applied coating that doesn't affect CE mark characteristics, then that application process should be subject to factory production control, the product should carry the CE mark and be accompanied by a valid DoP. Ensure this is the case.

See [WPA FR FAQ Factsheet 4](#) for further details.

OR

Treatment Certificate

Where the product is factory FR treated by a third party after placing on the market (solid wood, some plywood), then ensure you have copies of the relevant treatment certificate stating the treatment level achieved and linking that to the Euroclass rating in the original classification report.

Please note that plywood FR treated by pressure impregnation is not suitable for structural applications without retesting of strength properties. Again, see [WPA FR FAQ Factsheet 4](#) for further details.

Fitness for purpose check

Finally, always check that the description of the material given in the Classification Report quoted by the manufacturer can be taken to apply to the material to be used in the project. Different species and cross-sectional sizes do affect fire performance ratings and require an Extended Application Report.

Example: *If a Classification Report refers to Euroclass B, s1, d0 being achieved on 25mm thick spruce 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.*
- *Alternative species*
- *Installation with an air gap*
- *Use with backing materials deemed to be of higher risk performance*

If in doubt, contact the WPA Specifier Help-line for advice and assistance

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