

GUIDANCE NOTE

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Flame Retardant Treated Wood Specification Check-list

To assist specifiers in exercising due diligence, this publication provides a step by step guide to ensuring that flame retardant treatments for wood-based materials are fit for purpose. Further WPA guidance on the fire protection of wood is available at the website: www.thewpa.org.uk

Step 1: Specify the Fundamentals

What fire performance is required - Euroclass B or C?

See Guidance Note WPA FR 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 Guidance Note WPA FR 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.

Performance data can be found in the certificate for each **WPA Benchmark** approved flame retardant. Details of all **WPA Benchmark** Approved Flame Retardant formulations and treaters can be found on the website: www.thewpa.org.uk

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

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Audit Trail Requirements

Classification Report(s) from a Notified Body¹ 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 including the species of wood or wood-based material, e.g. spruce, and the allowed variation in thickness, e.g. 12 to 25mm etc. *Please see Guidance Note WPA FR 7 for more details.*

CE Mark & Declaration of Performance (DoP)

Where the flame retardant is added in the factory during the manufacturing process for MDF, OSB or plywood then that application process should be subject to factory production control (*accredited by a notified body¹*) and the product should carry the CE mark and be accompanied by a valid DoP when it leaves the factory.

Where the product is factory FR treated after manufacture (*solid wood, some plywood*) the service treatment company must also operate factory production controls which have been accredited by a notified body¹, alongside those of the company placing the product on the market, so as to maintain the full traceability which must underpin the DoP & the CE mark.

Plywood FR treated by pressure impregnation is not suitable for structural applications without retesting of strength properties. Always request a valid DoP from the product distributor/owner that reflects any change in properties resulting from the FR treatment. *See Guidance Notes WPA FR 4 and WPA FR 9 for further information.*

NOTE 1: A notified body is an organisation designated by the EU to assess the conformity of products before being placed on the market. Third party assessment is required for safety critical criteria such as the performance of material in fire.

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 behind
- Use with backing materials deemed to be of higher risk performance than plasterboard