Reaction to Fire Testing & Classification

**British National Standards (Class 1 & Class 0) vs. European (Euroclass) Classifications**

The Old National Classifications

Class 1 to BS 476 part 7 (Surface Spread of Flame)
The spread of flame must not be more than 165mm in 10 minutes.

Class 0 to BS 476 parts 7 & 6
This includes Class 1 SSF as above but also Part 6 which is known as the ‘Fire Propagation Index’ which measures the heat released when timber burns. Timber achieving a Class 0 specification must have a Fire Propagation Index of <12.

New European Classifications to Euroclass B or Euroclass C

Timber/ply is tested to EN ISO 11925 (Ignitability test) & BS EN 13823 (SBI or Single Burning item test). The SBI test records parameters relating to the rate of fire growth, lateral flame spread, total heat release, level of smoke production and number of flaming droplets.

The above test results are evaluated in accordance with BS EN 13501-1 (Fire Classification of Construction Products and Building Elements) and the appropriate Euroclass awarded and a Classification Report issued.

ONLY A SPECIES SPECIFIC EUROCLASS CLASSIFICATION REPORT IS FULL EVIDENCE OF COMPLIANCE – A FIRE TREATMENT CERTIFICATE ALONE IS NOT SUFFICIENT.

The same SBI test is conducted for both Euroclass B & Euroclass C; The thresholds for compliance in relation to the above SBI criteria are higher for Euroclass B than for Euroclass C, therefore by definition if timber/ply conforms to Euroclass B then it also conforms to Euroclass C. Untreated timber & plywood would typically achieve a Euroclass D fire performance. The aim of a fire retardant treatment is to upgrade to either Euroclass B or C depending upon what is needed for UK Building Regulation compliance.

UK Building Regulations
In England and Wales, the fire requirements for buildings are dealt with by Approved Document Part B to the Building Regulations.

From the 1st July 2013 under the terms of the Construction Products Regulation, Class 1 & Class 0, in relation to timber cladding & plywood used in permanent construction, are now phased out where a Harmonised Product Standard exists.

Euroclass B transposes to Class 0 and Euroclass C transposes to Class 1
NB: It is not possible to obtain a National class and sell to a European class or vice versa. In other words, you must carry out testing against European standards to achieve a European classification.

Are the new Euroclasses as good as the old National Standards?
The simple answer to this is that they are different. Euroclasses are a new set of Reaction to Fire tests that are deemed as acceptable as the old British Standards by UK Building Regulations. Now, for the first time in UK Building Regulations, these new Reaction to Fire tests evaluate smoke emission for timber & plywood.

EUROCLASS B & EUROCLASS C ARE NOT TIME RATED FIRE PERFORMANCES AND DO NOT OFFER 30 OR 60 MINS FIRE RESISTANCE

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