

# News on Wood Standardisation

News on CEN and ISO standardisation  
for wood and wood-based products

June 2007



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## Structural timber, glued laminated timber, roof trusses etc.

Within the CEN Technical Committee TC124 Timber structures standards are drawn up for wood, wood based products (however not panel products), glued laminated timber, connectors, fasteners etc for use in load bearing structures. The work has been taking place for nearly 20 years and has so far resulted in about 40 completed standards. In addition approximately 10 standards are being drafted. Several of them will be finalized during next year. The completed standards are continuously reviewed or complemented and this process currently concerns approximately 10 standards.

A large number of the standards apply to testing of wood, wood products, connectors etc. while others are product standards. However, most important of all are the harmonised standards that permit and give rules for CE-marking of products. Four of the completed standards and six of those that are being drafted are harmonised. The harmonised standards are drawn up according to mandates (order) from the European Commission and complying with the standard requirements means that the essential requirements in the Construction Products Directive are met. The number and title of each harmonised standard is published in the EU Official Journal along with the date when the standard becomes mandatory.

Below, the current situation for the harmonised standards and their content is described and some details are also given regarding the testing and product standards referred to.

### Structural timber

On September 1, 2007, the application of the standard EN 14081 and CE-marking of structural timber would have become mandatory but the so called co-existence period, during which also existing national systems may be used, has been extended with one year (after request from Belgium, France, Germany and Austria) and thus until August 2008 application of the standard and CE-marking is voluntary. The standard comprises of four parts: part 1 gives the general requirements for both visual and machine grading, part 2 and part 3 give de-

tailed requirements for machine grading according to both the “machine controlled” and “output controlled” systems and part 4 lists the grading machine settings for “machine controlled” systems. Part 4 is continually developed for new machine types and new strength classes or strength class combinations. Therefore, drafting has already started of amendment number four to the original version that was published in November 2005.

The certification of the factory production control must be done by a notified body that is appointed by EU’s member states. Just over 30 notified bodies currently exist for structural timber. 21 of the 45 Swedish companies that machine grade structural timber have so far got certificates for CE-marking. For visual grading the extension of the co-existence period has given a certain breathing-space and the work with certification will be initiated during the autumn 2007. A large number of companies will then be concerned, for GS/SS-grading about 80 and for T-timber grading more than 250. Many of the companies are small and/or produce small volumes of structural timber and therefore the certification procedure can be considered as too burdensome and an alternative would be to cease with the grading. This is a problem that is present also in other countries, for instance Germany and Austria, and methods to facilitate the procedure for these companies are discussed.

Among those standards that are referred to in EN 14081 can be mentioned the standard for sizes, EN 336, that primarily states permitted size deviations which in practice already are applied since long, and the standard for strength classes for structural timber, EN 338, that states 12 classes from C14 to C50. Another important standard is EN 1912 that assigns visual grades and species according to different strength grading rules to the strength classes in EN 338.

Finger jointed structural timber is not covered by EN 14081 but there will come, perhaps during 2008, a harmonised standard (prEN15497). Until then finger jointed timber cannot be CE-marked, but can be produced and marked according to so far current rules (the standard EN 385).

Wood protection treated timber is covered by EN 14081 provided a special standard that states requirements for preservative treatment of structural timber is applied. This standard, prEN 15228, is until 2007-08-24 sent out for Enquiry. The most controversial in that standard and in EN 14081 concerns the marking of the preservative treated timber. It is prescribed that each piece of timber shall be marked with PT (Preservative Treated) and information regarding the preservation process. Organisations within the timber area and different countries

have different opinions about this. Some mean that labelling of each timber package should be sufficient.

### Glued laminated timber

The harmonised standard for glued laminated timber, EN 14080, has got the co-existence period extended with two years and application of the standard and CE-marking of glued laminated timber does not become mandatory until April 1, 2009. The reason for the extension was that the EU Standing Committee on Construction considers that the standard does not meet certain fundamental requirements linked to Eurocode 5, the European timber building standard, and that the standard contains some errors. A revision work has therefore been initiated in order to solve these questions and moreover to correct what can be denoted as safety problems in the standard and linked standards (for instance EN 1194 Strength classes for glued laminated timber). These problems are said to have contributed to the collapses of glulam structures that have occurred during the last years, for instance in Germany.

### Roof trusses

The standard EN 14250 for prefabricated structural members assembled with punched metal plate fasteners have for the same reason as for the glulam standard got extended co-existence period and becomes mandatory on June 1, 2008. In relation to the production system that for many years has been applied in Sweden the new standard does not lead to any important changes.

### LVL (Laminated Veneer Lumber)

LVL (in the shape of solid timber) for load bearing timber structures is dealt with in EN 14374, which since September 1, 2006 requires CE-marking. Very few European producers are concerned of this standard. LVL as a panel product, which also can be used in load bearing structures, is dealt with in standards drawn up by the CEN Technical Committee TC 112 Wood-based panels.

### Connectors and fasteners

Connectors and fasteners are dealt with in two future harmonised standards: prEN 14545 for punched metal

plate fasteners, nailing plates etc. and prEN 14592 for nails, screws, bolts, staples and dowels. The standards prescribe material, dimensions (geometry) and corrosion requirements and give rules for establishing strength and stiffness properties.

### Prefabricated wall, floor and roof elements

A harmonised standard (prEN 14732) for relatively simple wall, floor and roof elements is under preparation. The proposal has been out for Enquiry twice and also after the last Enquiry extensive comments have been given which give rise to a radical re-drafting of the standard.

### Round timber for structural purposes

In the work programme there is included to take forward a harmonised standard (prEN 14544) for how round timber can be used in timber structures. The European interest for this matter is very low, however, and it is probable that the standard never will be taken forward.

### Wood poles for overhead lines

Currently, for wood poles there are five standards for sizes, durability, test methods, strength grading criteria and characteristic strength and stiffness values respectively. These standards have now been integrated into a harmonised standard (prEN 14229) for wood poles, which soon will be sent out for Enquiry.

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