



## (BS) EN 14374 : 2004

### **Timber structures - Structural laminated veneer lumber - Requirements**

This gives the requirements for LVL used for structural applications. It covers the tests to be used, the methods to be used for the evaluation of conformity and content of the marking. It does not cover LVL treated against biological attack or fire.

LVL is covered by two European standards - EN 14374 and EN 14279. Under Mandate M/112 'Structural timber products and ancillaries', LVL is a material used for manufacturing structural products. However, under Mandate M/113 'Wood-based panels', LVL is classified as a product. Therefore, EN 14279 applies to LVL products for general purpose as well as for use in construction, while EN 14374 covers the use of LVL for structural applications.

EN 14374 contains its own Annex ZA and compliance with these clauses confers a presumption of fitness of the LVL for the intended end use. The Attestation of Conformity for structural LVL is under system 1, whereas that for structural plywood is system 2+.

#### **The requirements covered in EN 14374 are:**

- Veneers
- Bonding quality
- Dimensions and tolerances
- Strength:

Bending edgewise and flat wise

Tension parallel and perpendicular to the grain

Compression parallel and perpendicular to the grain

Shear related to edgewise and flatwise bending

- Stiffness:

Modulus of elasticity parallel and perpendicular to the grain

Shear modulus related to edgewise and flatwise bending

- Density
- Moisture control
- Reaction to fire
- Release of formaldehyde
- Natural durability against biological attack



Essential characteristics for CE- marked LVL for use in load bearing applications in buildings and bridges		
Essential Characteristics	EN 14374 Clause No.	Levels and/or Classes
Modulus of elasticity	4.5.2	–
Bending strength	4.4.2 4.4.3	–
Compression strength	4.4.6 4.4.7	–
Tension strength	4.4.4 4.4.5	–
Shear strength	4.4.8 4.4.9	–
Bonding strength	4.2	–
Reaction to fire	4.8	A1 - F
Release of formaldehyde	4.9	–
Durability	4.10	–
<p><b>Note:</b> Not all characteristics are applicable in all EU Member State. Where there are no regulatory requirements on that characteristic for the intended end use, manufacturers are, therefore, not obliged to determine nor declare the performance of their LVL with regard to that specific characteristic. As such, they can use the option 'No performance determined' (NPD) in the information accompanying the CE marking. The NPD option may not be used where the characteristic is subject to a threshold level.</p>		