



(BS) EN 1995-1-1: 2004 + A2: 2014 Eurocode 5:

Design of Timber Structures - General - Common rules and rules for building (incorporating Corrigendum, June 2006)

It includes: EN 1995-1-2 General rules – Structural Fire Design (excluding structures subject to prolonged exposure to temperatures over 65°C).

Eurocode 5 is based on determining the material's characteristic values and replaces the permissible stress system previously used in national Codes of Practice. It covers building design and civil engineering works using both solid wood and wood-based structural and panel products. Of the two parts, only EN 1995-1 is referred to here, not EN 1995 -2 Bridges.

[The 10 Eurocodes](#) deal with the structural design of buildings using different materials and include **EN 1990 Eurocode**: Basis of structural design and **EN 1991 Eurocode 1**: Actions on structures which cover the principals of structural design and the loads acting upon these structures. It covers mechanical resistance, serviceability, durability and fire resistance of timber structures. Requirements such as thermal or sound insulation are not considered.

Eurocodes have a corresponding National Annex for each Member State which provides Nationally Determined Parameters and allowable choices, identified in Informative Annexes.

Guide to Eurocode Service Classes:

Also see how they align to the five Use Classes in EN 335:2013

Service Class 1: characterised by a moisture content in the material corresponding to 20°C with the relative humidity of the surrounding air exceeding 65% for only a few weeks per year. (The average moisture content in most softwoods will not exceed 12%).

Service Class 2: characterised by a moisture content in the material corresponding to 20°C and the relative humidity of the surrounding air only exceeding 85% for a few weeks per year. (The average moisture content in most softwoods will not exceed 20%).

Service Class 3: characterised by climatic conditions leading to higher moisture content than in Service Class 2.

Characteristic values: Eurocode 5 works on a limit state approach, with its starting point the characteristic values of specific materials. The designer must then apply additional factors relating to, for example, safety, load duration and environmental conditions. This results in characteristic values being higher than the published permissible stress values, which already had safety values applied.



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Nationally determined parameters: these make it possible to take into account specific geographical, geological or climatic conditions as well specific levels of protection applicable in different Member States. For each nationally determined parameter, the Eurocodes provide a recommended 'default' value which the Member State can use. Alternatively, the Member State is free to choose a different specific value if they consider it necessary in order to ensure that buildings and civil engineering works are designed and executed in a way that does not endanger safety within that Member State.

Note for structural engineers: use in conjunction with the following standards:

EN 1990: 2002 Eurocode - Basis of design

EN 1991 Eurocode 1: actions on structures

EN 1998 Eurocode 8: for building in seismic regions