

Softboard



Range of applications

as stated in the manufacturer's approval or according to EN 622-4

Technical class	Requirement	Service classes acc. to EN 1995-1-1
SB.LS	Loadbearing boards for use in dry conditions.	1
SB.HLS	Loadbearing boards for use in humid conditions.	1 and 2

General Description

Softboard is generally used as insulating board due to its thermal and acoustic properties. Softboard is manufactured using heat and pressure. Most softboards are produced in a "wet process", where a fibre moisture content of more than 20% at the forming stage is common. The range in density is $\geq 230 \text{ kg/m}^3$ up to $< 400 \text{ kg/m}^3$. By incorporating additives certain properties can be improved, e.g. fire resistance and moisture resistance.

Typical board sizes [mm]

Length	1700 – 2600
Width	600 – 1700
Thickness	6 – 80

Technical References

Approval provided by the manufacturer or

EN 622-4	Fibreboards – Specifications Part 4: Requirements for softboards
EN 316	Wood fibre boards Definition, classification and symbols
EN 13986	Wood-based panels for use in construction – Characteristics, evaluation of conformity and marking
EN 1058	Wood-based panels – Determination of characteristic 5-percentile values and characteristic mean values
EN 1995-1-1/2	Eurocode 5 – Design of timber structures Part 1-1: General – Common rules and rules for buildings Part 1-2: General – Structural fire design
ÖNORM B 1995-1-1/2	Eurocode 5: Nationale Festlegungen, nationale Erläuterungen und nationale Ergänzungen zu ÖNORM EN 1995-1-1/2 (Eurocode 5: National specifications for the implementation of EN 1995-1-1/2, national comments and national supplements)
EN 13171	Thermal insulation products for buildings – Factory made wood fibre (WF) products – Specification
EN 13501-1	Fire classification of construction products and building elements Part 1: Classification using data from reaction to fire tests

Softboard

Mechanical properties

_ as stated in the manufacturer's approval

Remark: Because softboards are primarily used as non load-bearing insulation boards and plaster base layer/ lath, no characteristic values are provided in European standards for panels of the types SB.LS and SB.HLS. If required, the mechanical properties have to be determined in accordance with EN 1058 or the values provided in suitable test certificates have to be used.

Physical properties

_ as stated in the manufacturer's approval or
 _ according to EN ISO 10456

	Fibreboards	
ρ [kg/m ³]	250	400
λ [W/mK]	0,07	0,10
μ	3/5	5/10
c [kJ/kgK]	1,7	1,7

Please note: the μ -value of a material can be subject to substantial deviations. When uncertain use values provided in testing reports if such documents are available.

Fire performance

_ as stated in the manufacturer's approval or
 _ according to Commission Decision 2007/348/EC

Softboard	$\geq 250 \text{ kg/m}^3, \geq 9 \text{ mm}$
Euroclass	E
Smoke production	complied
Flaming droplets	complied

...except floor assemblies

_ according to EN 1995-1-2

	$\rho_k = 450 \text{ kg/m}^3, 20 \text{ mm}$
charring rate β_0	0,9 mm/min

Please note: for other densities and thicknesses < 20 mm the charring rate is to be calculated according to the following equation:

$$\beta_{0,\rho,t} = \beta_0 k_\rho k_h \text{ where}$$

$$k_\rho = \sqrt{(450/\rho_k)}$$

$$k_h = \sqrt{(20/h_p)}$$

ρ_k ... characteristic density in kg/m³
 h_p ... board thickness in mm