

Mechanical strength

The mechanical strength properties of door cores only have little influence on the stability of the finished door.

More significant factors are:

- the technical properties of the deck and frame
- the performance of all components under different climate

Sound insulation / Fire performance

The design of an acoustic door requires appropriate weight as well as low bending strength of the door. Therefore low bending strength and high compression resistance should be aimed at.

Referring fire performance high bending strength of all wooden materials often results in high distortion.

Thick : 32 mm	RT / RK1	RD	VL	VV	HVA	dimension
Bending Strength - vertical - parallel to the manufactur. direction	3,8 1,1	4,0 1,2	5,5 1,5	6,5 1,8	12,2 1,8	N/mm ² N/mm ²
Flexibility E_b - vertical - parallel to the manufactur. direction	900 120	900 120	800 110	1100 140	1800 170	N/mm ² N/mm ²
Tensile Strength δ _{zb}	> 0,5	> 0,6	> 0,6	> 0,7	> 0,8	N/mm ²
Surface Pressure max. limit without considerable deformation	10	12	16	18	22	bar
Weight - kg/m ² - kg/m ³ - density solid	8,2/8,8 257/274 520	9,6 300 525	15,7 490 490	19,2 600 600	20,8 650 650	kg/m ² kg/m ³ kg/m ³ -sol

Please notice:

The figures mentioned above are average figures taken from various measurements.

They are to be understood as approximate figures as they are only of secondary importance for door manufacturing.

They are not worked out continuously.

Surface Pressure :

The figures are taken 'dry' and at room temperature.

The figures mentioned above have to be reduced in case of :

- moisture eg. glue application or wet skins
- higher temperature after long pressing time