













<b>Mechanical Properties, Strength values</b> 	Ayous, Kiln-dried	Ayous, Thermowood
Modules of elasticity (MOE), flatwise (MPa-N/mm <sup>2</sup> ) DIN EN 408, TS 2478	5.800	5200
Modules of rupture (MOR), flatwise (MPa) DIN EN 408, TS 2474	64	40
Impact bending strength (IBS), flatwise (MPa) TS 2477	-	-
Compressive strength (CS),(MPa) TS 2595	-	-
<b>Dimensional Stability</b> <b>65%Rh 20°C</b> <i>(Increased Stability)</i> <i>(Minimized deformations)</i> <i>(Minimized Expansion and Shrinkage)</i> 	Ayous, Kiln-dried	Ayous, Thermowood
Change in Length swelling (mm/m) TS 4083, 4084	0,65	0,38
Change in Length shrinkage (mm/m) TS 4083, 4084	0,30	0,25
Change in Thickness swelling (mm/m) TS 4083, 4084	0,90	0,26
Change in Thickness shrinkage (mm/m) TS 4083, 4084	0,80	0,20
<b>Physical Properties, Moisture content</b> 	Ayous, Kiln-dried	Ayous, Thermowood
Equilibrium moisture content at 20/65 (%) EN 13183-1	11 (9-12)	4.6 (4-7)
Raw density at 20/65 (kg/m <sup>3</sup> ) DIN 52182	490	430



<b>Biological durability against wood-decaying basidiomycetes</b> <i>(Increased durability to decay)</i> <i>(Resins and sugars removed)</i> <i>(Low moisture content prevents decay and fungi growth)</i>			Ayous, Kiln-dried	Ayous, Thermowood
Preliminary durability classification Median mass loss (< 5 %) CEN/TS 15083-1			-	Class 2
<b>Nail and screw holding strength</b> <i>(screw withdrawal strength)</i>			Ayous, Kiln-dried	Ayous, Thermowood
<b>a.</b> Stainless steel or galvanised screws and plastics clips are recommended. Hidden and face fixing systems EN 1383, NEN 6562 <b>b.</b> Steel material standard 10088-3			1.800 N	907 N
<b>Glueing</b>			Ayous, Kiln-dried	Ayous, Thermowood
Fingerjoints Laminations Panel production			-	MUF, Polyuretane
<b>Brinell Hardness</b>			Ayous, Kiln-dried	Ayous, Thermowood
HB10/100			1,3	0,95
<b>Emissions</b>			Ayous, Kiln-dried	Ayous, Thermowood
The emissions are not harmful in fresh air.			-	OK
The smell of thermowood products may disappear within a few days but with the surface treatment or rain it may raise up again.			-	Short Time
<b>Thermal conductivity, Insulation</b> <i>(Decreased Thermal Conductivity)</i>			Ayous, Kiln-dried	Ayous, Thermowood
Heat conductivity W/mK TS EN 12667			1,2	0,099
<b>Colour</b>			Ayous, Kiln-dried	Ayous, Thermowood
Colour of the wood changes (Ayous colour is dark brown)			-	OK
Oil and water based coatings			-	OK



**Environment**

*(100 % naturel)  
(recyclable)  
(from renewable forests)*



**Ayous, Kiln-dried**

**Ayous, Thermowood**

100 % naturel

-

OK

100 % recyclable and biodegradable

OK

OK

Low processing energy demand

OK

OK

Sustainable development and a low carbon future

OK

OK

**Healty and safety**



**Ayous, Kiln-dried**

**Ayous, Thermowood**

Definitely naturel and harmless. Free of chemicals.

OK

OK

Completely healthy.

OK

OK

Improving the stability and durability of wood without using any persistent toxic chemicals

OK

OK