



Mechanical Properties, Strength values		Ayous, Kiln-dried	Ayous, Thermowood
Modules of elasticity (MOE), flatwise (MPa-N/mm ²) 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		-	-

Dimensional Stability 65%Rh 20°C <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

Physical Properties, Moisture content		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 ³) DIN 52182		490	430



Biological durability against wood-decaying basidiomycetes (Increased durability to decay) (Resins and sugars removed) (Low moisture content prevents decay and fungi growth)			
		Ayous, Kiln-dried	Ayous, Thermowood
Preliminary durability classification Median mass loss (< 5 %) CEN/TS 15083-1		-	Class 2
Nail and screw holding strength (screw withdrawal strength)			
		Ayous, Kiln-dried	Ayous, Thermowood
a. Stainless steel or galvanised screws and plastics clips are recommended. Hidden and face fixing systems EN 1383, NEN 6562 b. Steel material standard 10088-3		1.800 N	907 N
Glueing			
		Ayous, Kiln-dried	Ayous, Thermowood
Fingerjoints Laminations Panel production		-	MUF, Polyurethane
Brinell Hardness			
		Ayous, Kiln-dried	Ayous, Thermowood
HB10/100		1,3	0,95
Emissions			
		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
Thermal conductivity, Insulation (Decreased Thermal Conductivity)			
		Ayous, Kiln-dried	Ayous, Thermowood
Heat conductivity W/mK TS EN 12667		1,2	0,099
Colour			
		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