














Mechanical Properties, Strength values		Tulipwood, Kiln-dried	Tulipwood, Thermowood
Modules of elasticity (MOE), flatwise (MPa-N/mm ²) DIN EN 408, TS 2478		-	9.100 - 13.900 (10.000)
Modules of rupture (MOR), flatwise (MPa) DIN EN 408, TS 2474		-	48 - 62 (48.00)
Physical Properties, Moisture content		Tulipwood, Kiln-dried	Tulipwood, Thermowood
Equilibrium moisture content at 20/65 (%) EN 13183-1		11.6 (9-12)	4 (4-6)
Raw density at 20/65 (kg/m ³) DIN 52182		465-510	390-420
** A medium density wood with low bending, shock resistance, stiffness and compression values, with a medium steam bending classification. Tulipwood is very strong for its weight and is ideal for laminated beams and structures.			
Biological durability against wood-decaying basidiomycetes <i>(Increased durability to decay) (Resins and sugars removed) (Low moisture content prevents decay and fungi growth)</i>		Tulipwood, Kiln-dried	Tulipwood, Thermowood
Preliminary durability classification Median mass loss (< 5 %) CEN/TS 15083-1		-	Class 1



Nail and screw holding strength <i>(screw withdrawal strength)</i>		Tulipwood, Kiln-dried	Tulipwood, Thermowood
a. Stainless steel or galvanised screws and plastic clips are recommended. Hidden and face fixing systems EN 1383, NEN 6562 b. Steel material standard 10088-3		-	Class A2
Surface contaminations from fixation elements		-	Not delicate
Glueing		Tulipwood, Kiln-dried	Tulipwood, Thermowood
Fingerjoints Laminations Panel production		-	MUF, Polyuretane
Brinell Hardness		Tulipwood, Kiln-dried	Tulipwood, Thermowood
		-	25 N/mm ²
Emissions		Tulipwood, Kiln-dried	Tulipwood, 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 <i>(Decreased Thermal Conductivity)</i>		Tulipwood, Kiln-dried	Tulipwood, Thermowood
Heat conductivity W/mK TS EN 12667		1,2	0,13
Colour		Tulipwood, Kiln-dried	Tulipwood, Thermowood
Colour of the wood changes (Tulipwood colour is dark honey)		-	OK
Oil and water based coatings		-	OK



Environment <i>(100 % naturel) (recycleable) (from renewable forests)</i>		Tulipwood, Kiln-dried	Tulipwood, Thermowood
PEFC certified		-	OK
100 % naturel		OK	OK
100 % recyclable and biodegradable		OK	OK
Low processing energy demand		OK	OK
Sustainable development and a low carbon future		OK	OK

Healthy and safety		Tulipwood, Kiln-dried	Tulipwood, 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

Freeze-heat shock treatments		Tulipwood, Kiln-dried	Tulipwood, Thermowood
1 Cycle: Freezing stage: 3 days -40°C as frozen wood and then Heating stage: 30 min 200°C in furnace as thermal shock effects. Novawood [®] R&D test specs and ASTM-D 143-94 standards.		-	OK-5 cycle <i>(surface quality) (no cracks) (no color change).</i>