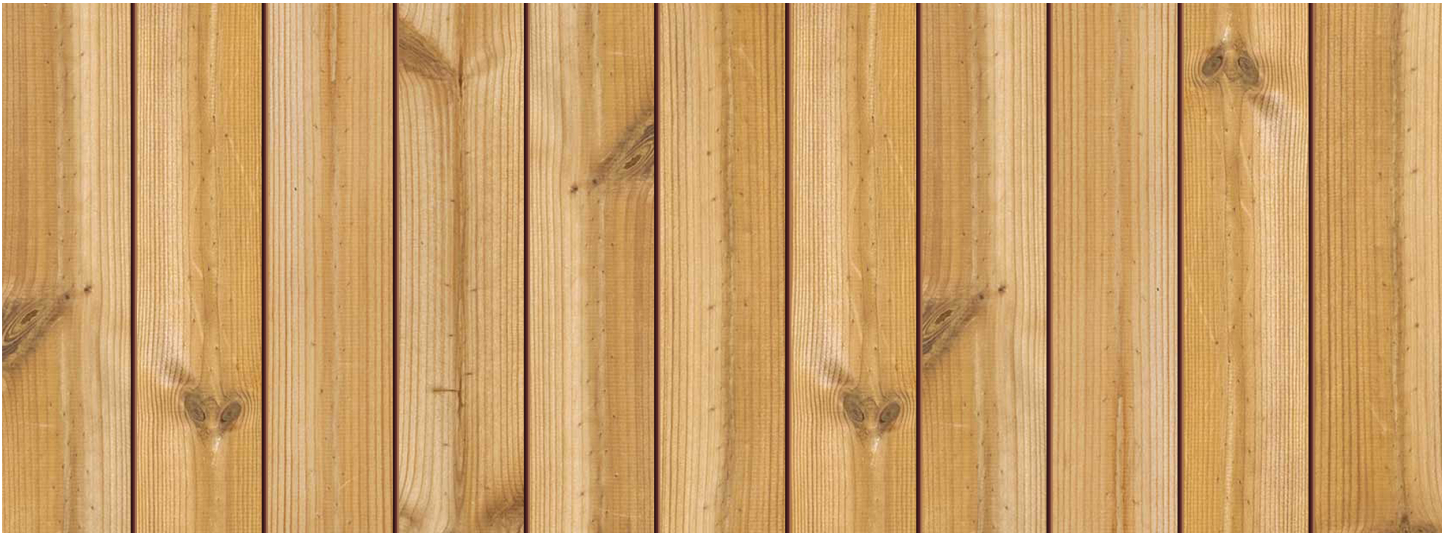


Black Label™

Thermo Pine Data Sheet



BLACK LABEL
THE WORLD'S BEST WOOD



Mechanical Properties, Strength values	Kiln Dried Pine	Black Label™ Thermo Pine
Modules of elasticity (MOE), flatwise (MPa-N/mm2) DIN EN 408, TS 2478	8529	7411
Modules of rupture (MOR), flatwise (MPa) DIN EN 408, TS 2474	76	31-42
Impact bending strength (IBS), flatwise (MPa) TS 2477	0,43	0,16
Compressive strength (CS), (MPa) TS 2595	42	44

Dimensional Stability 65%Rh 20° C	Kiln Dried Pine	Black Label™ Thermo Pine
Maximum swelling ratio, tangential (SW-T) (%) DIN 52184 , TS 4083, 4084	8,6	3,22
Maximum swelling ratio, radial (SW-R) (%) TS 4083, 4084	4,42	1,5
Maximum swelling ratio, longitudinal (SW-L) (%) TS 4083, 4084	0,18	0,07
Maximum shrinkage ratio, tangential (Sh-T) (%) TS 4083, 4084	7,26	3,62
Maximum shrinkage ratio, radial (Sh-R) (%) TS 4083, 4084	4	1,79
Maximum shrinkage ratio, longitudinal (Sh-L) (%) TS 4083, 4084	0,16	0,08

Black Label™ Thermo Pine has enhanced dimensional stability: Increased Stability | Minimized deformations | Minimized Expansion and Shrinkage

Physical Properties, Moisture content	Kiln Dried Pine	Black Label™ Thermo Pine
Equilibrium moisture content at 20/65 (%) EN 13183-1	11,6 (9-12)	4 (4-6)
Raw density at 20/65 (kg/m³) DIN 52182	434-470	362-404

Biological durability against wood-decaying basidiomycetes	Kiln Dried Pine	Black Label™ Thermo Pine
Increased durability to decay	No	Yes
Resins and sugars removed	No	Yes
Preliminary durability classification Median mass loss (< 5 %) CEN/TS 15083-1	-	Class 2

Black Label™ Thermo Pine has low moisture content that prevents decay and fungi growth.

Surface burning characteristics of buildings material- Fire resistance	Kiln Dried Pine	Black Label™ Thermo Pine
Fire Resistance (UNCOATED) EN 13823	-	D
Smoke Production	-	S2
Flaming droplets/particles	-	d0
Fire Resistance (COATED by using fire retardancy liquids) (immersed/impregnated wood) EN 13823	-	A2/B
Smoke Production	-	S1
Flaming droplets/particles	-	d0

Black Label™ Thermo Pine has improved fire-resistance.

Nail and screw holding strength	Kiln Dried Pine	Black Label™ Thermo Pine
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

Black Label™ Thermo Pine has screw withdrawal strength.

Glueing	Kiln Dried Pine	Black Label™ Thermo Pine
Fingerjoints Laminations Panel production	-	MUF, Polyurethane

Brinell Hardness	Kiln Dried Pine	Black Label™ Thermo Pine
	-	15 N/mm2

Thermal conductivity, Insulation	Kiln Dried Pine	Black Label™ Thermo Pine
Heat conductivity W/mK TS EN 12667	1,2	0,099

Freeze-heat shock treatments	Kiln Dried Pine	Black Label™ Thermo Pine
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. Black Label™ R&D test specs and ASTM-D 143-94 standards.	-	OK-5 cycle (surface quality) (no cracks) (no color change).

Emissions

- The emissions are not harmful in fresh air.
- The smell of thermowood products may disappear within a few days but with the surface treatment or rain it may raise up again. 100 % natural, environmentally friendly and recyclable products.

Colour

- Colour of the wood changes (Pine colour is dark brown).
- Oil and water based coatings.

Environment

- PEFC certified.
- 100 % naturel.
- 100 % recyclable and biodegradable.
- Low processing energy demand.
- Sustainable development and a low carbon future.
- Wood industries on fast grown plantation wood.
- From renewable forests.

Healthy and safety

- Definitely naturel and harmless. Free of chemicals.
- Completely healthy.
- Improving the stability and durability of wood without using any persistent toxic chemicals.



CONTACT US NOW:

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BlackLabelWood.com



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