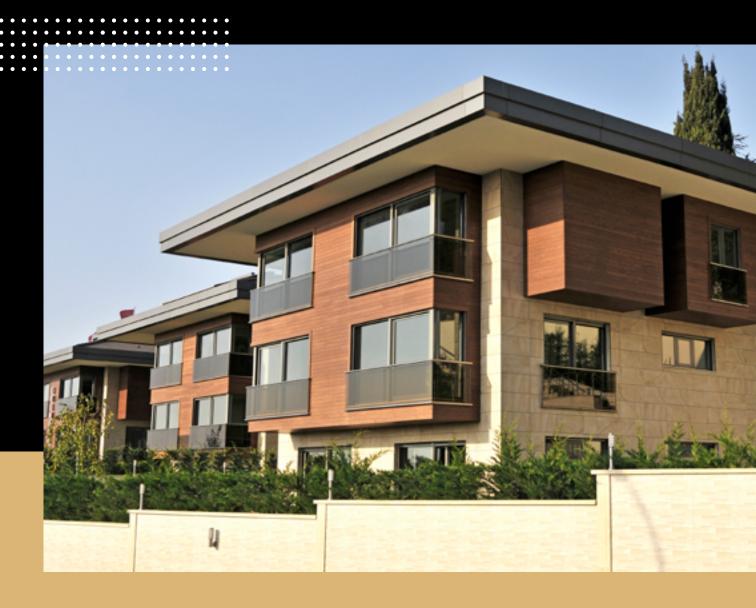
THERMOWOOD

Powered by Novawood Technology



Thermowood Ash Data Sheet





Mechanical Properties, Strength Values	Kiln-Dried Ash	Thermowood Ash
Modules of elasticity (MOE), flatwise (MPa-N/mm) DIN EN 408, TS 2478	19.226	12.480 – 14.000
Modules of rupture (MOR), flatwise (MPa) DIN EN 408, TS 2474	131.8	56.6 - 85.7
Impact bending strength (IBS), flatwise (MPa) TS 2477	-	-
Compressive strength (CS), (MPa) TS 2595	-	-

Dimensional Stability 65%Rh 20° C	Kiln-Dried Ash	Thermowood Ash
Maximum swelling ratio, tangential (SW-T) (%) DIN 52184, TS 4083, 4084	10.3	5.3
Maximum swelling ratio, radial (SW-R) (%) TS 4083, 4084	5.8	2.9
Maximum swelling ratio, longitudinal (SW-L) (%) TS 4083, 4084	-	-
Maximum shrinkage ratio, tangential (Sh-T) (%) TS 4083, 4084	7.1	4.6
Maximum shrinkage ratio, radial (Sh-R) (%) TS 4083, 4084	3.9	2.03
Maximum shrinkage ratio, longitudinal (Sh-L) (%) TS 4083, 4084	-	-

Thermowood Ash has enhanced dimensional stability: Increased Stability | Minimized Deformations | Minimized Expansion and Shrinkage

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Thermowood Ash

Data Sheet



Physical Properties, Moisture Content	Kiln-Dried Ash	Thermowood Ash
Equilibrium moisture content at 20/65 (%) EN 13183-1	10.1 (9-11)	4.2 (4-6)
Raw density at 20/65 (kg/m3) DIN 52182	677-738	595-629

Biological Durability Against Wood-Decaying Basidiomycetes	Kiln-Dried Ash	Thermowood Ash
Increased durability to decay	No	Yes
Resins and sugars removed	No	Yes
Median mass loss with Coniophora puteana DSM 3085 (n = 30) (%) CEN/TS 15083-1	-	0.1
Median mass loss with Coriolus versicolor CTB 863A (n = 30) CEN/TS 15083-1	-	0.1
Preliminary durability classification Median mass loss (< 5 %)	-	1 "very durable"

Surface Burning Characteristics of Buildings Material — Fire Resistance	Kiln-Dried Ash	Thermowood Ash
a. Flame Spread Index (FSI) ASTM E84-16	-	a. 40 Class B or II
b. For British fire resistance EN 13501	-	b. Class D
Smoke developed Index (SDI) ASTM E84-16	-	200 Class B or II
By using fire retardancy liquids	-	ОК
Thermowood Ash has improved fire resistance.		

Nail and Screw Holding Strength	Kiln-Dried Ash	Thermowood Ash
a. Stainless steel or galvanized 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
Thermowood Ash has screw withdrawal strength.		

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Thermowood Ash

Data Sheet



Glueing	Kiln Dried-Ash	Thermowood Ash
Fingerjoints Laminations Panel production	-	MUF, Polyurethane

Brinell Hardness	Kiln Dried-Ash	Thermowood Ash
	-	30.5 N/mm2

Thermal conductivity, Insulation	Kiln Dried-Ash	Thermowood Ash
Heat conductivity W/mK TS EN 12667	1.2	0.099

Emissions

- The emissions are not harmful in fresh air.
- The scent of thermo products may disappear within a few days, but with the surface treatment or rain, it may return.

Color

- The color of the wood changes (Ash color is dark brown).
- The coatings are oil and water based.

Environment

- FSC certified
- 100% natural
- 100% recyclable and biodegradable
- Low processing energy demand Sustainable development and a low carbon future
- From renewable forests

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