TROPICAL



Ash Decking and Cladding

THERMOTECH ASH DECKING AND CLADDING SELL SHEET







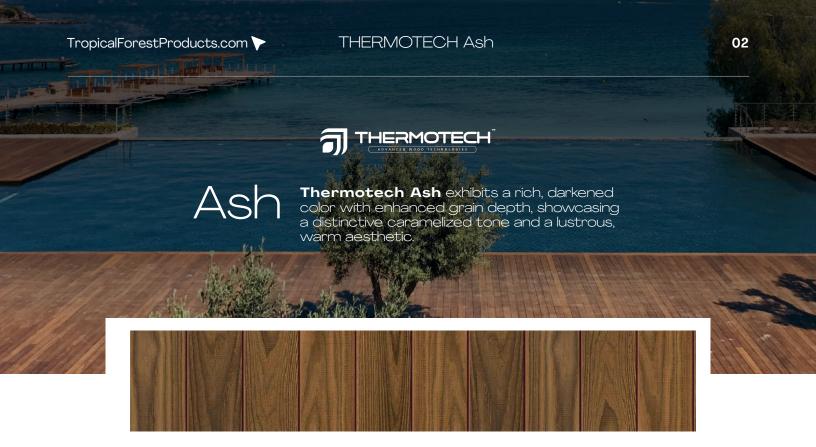


CALL US

905.672.8000 (CDN)

855.344.4500 (US)

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Thermal Modification Technology

Thermal modification is a technology that uses heat to remove sugars from the wood, while at the same time closing the woods cells, there by reducing or eliminating the sources on which mold grows.

This process not only extends the service life of the wood, but also creates a dimensional stability that greatly reduces installation time and labor costs.

Durability with a low cost to the environment

Easy to Install

Because of its lighter density and weight, especially in applications like cladding and soffits, self-drilling trim-head screws, nails and pneumatic fasteners penetrate the fiber more easily.

Eliminating fastener penetration, the hidden Pro Clad Clip System further extends the service life of wood claddings. Like naturally durable hardwoods, stainless steel fasteners are recommended for Thermotech modified wood products in delivering a service life consistent with naturally durable hardwoods.

Thermotech's thermal modification process creates a wood product with many of the benefits associated with naturally durable hardwoods. This is done without the use of chemicals that contain heavy metals such as copper and chromium.

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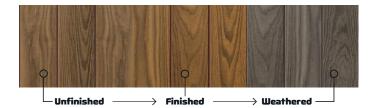






- No VOC.
- No chemical treatments.
- Safe for human contact.
- 20% lower heat retention than composites or PVC.
- Construction waste can be burned or composted.
- 100% natural.
- 100% reusable, upcyclable and biodegradable.
- Low processing energy demand.
- Sustainable development and a low carbon future.
- Fast growing plantation wood.
- From renewable forests.
- Natural, harmless, and free of chemicals.
- No special handling required.
- Improves the stability and durability of the wood without the use of persistent toxic chemicals.

- The color of the wood varies naturally from medium to dark
- Left unfinished and exposed to UV, THERMOTECH Ash will weather to a silver grey patina over time.



Maintenance:

- Takes oil and water based coatings well. It is important to remember that water based coatings can be applied over oil, but oil cannot be applied over water based coatings.
- Please defer to coating manufacturer for suitability of application to this product.

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









THERMOTECH Ash

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

Dimensional Stability 65%Rh 20°C

THERMOTECH Ash

| Maximum swelling ratio, tangential (SW-T) (%) DIN 52184, TS 4083, 4084 | 5.3 |
|--|-----|
| Maximum swelling ratio, radial (SW-R) (%) TS 4083, 4084 | 2.9 |
| Maximum swelling ratio, longitudinal (SW-L) (%) TS 4083, 4084 | - |
| Maximum shrinkage ratio, tangential (Sh-T) (%) TS 4083, 4084 | 4.6 |
| Maximum shrinkage ratio, radial (Sh-R) (%) TS 4083, 4084 | - |
| Maximum shrinkage ratio, longitudinal (Sh-L) (%) TS 4083, 4084 | 4.6 |

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

| Physical Properties, |
|----------------------|
| Moisture Content |

THERMOTECH Ash

| Equilibrium moisture content at 20/65 (%) | 4.2.(4.6) |
|---|-----------|
| EN 13193_1 | 4.2 (4-6) |

Raw density at 20/65 (kg/m3) 595-629 DIN 52182



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| Increased durability to decay | Yes |
|--|------------------|
| Resins and sugars removed | 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" |

THERMOTECH Ash has low moisture content that prevents decay and fungi growth.

| of Buildings Material - Fire Resistance | THERMOTECH 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 | OK |

THERMOTECH Ash has improved fire resistance.



We highly recommend reviewing our "Tropical Forest Products Best Practices" guide as part of your product selection process.

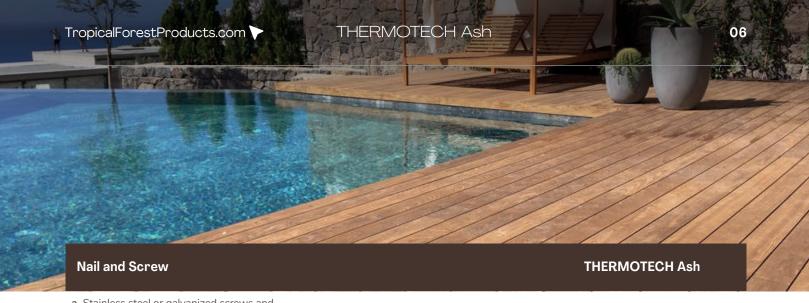


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 a. Stainless steel or galvanized screws and plastic clips are recommended.
 Hidden and face fixing systems EN 1383, NEN 6562

Class A2

b. Steel material standard 10088-3

| Glueing | THERMOTECH Ash |
|---|-------------------|
| Fingerjoints Laminations Panel production | MUF, Polyurethane |

| ThermoTech Ash Glues W |
|------------------------|
|------------------------|

| Brinell Hardness | THERMOTECH Ash |
|------------------|----------------|
| | |

30.5 N/mm2

| Thermal Conductivity, Insulation | THERMOTECH Ash |
|---------------------------------------|----------------|
| Heat conductivity W/mK TS EN 12667 | 0.099 |

Lower Heat Retention

| THERMOTEC | H WEIGHT | Color | Profile | Length | Weight |
|-----------|------------------------------|-------|------------|----------------|--------|
| | Decking / Cladding / Louvers | Color | Nominal | Linear Feet | lbs/LF |
| ASH | Deck Clean | Dark | 1 x 6 PLUS | 4' - 12' | 1.02 |
| | Deck Clean | Dark | 5/4 x 6 | 4' - 12' | 1.31 |









| Mechanical Properties For Thermally Modified White Ash | |
|---|---------|
| ASTM D143- Static Bending | |
| Max Flexure Load | (lbf) |
| Median | 411.38 |
| Max. Compression | 661.86 |
| Min | 181.42 |
| ASTM D143- Hardness | |
| Compressive Load at 0.25 in. | (lbf) |
| Median | 1786.69 |
| Max. | 2324.07 |
| Min. | 1255.27 |
| ASTM D143- Cleavage/ Split Resistance | |
| Tensile Load | (lbf) |
| Median | 224.69 |
| Max. | 314.35 |
| Min. | 144.49 |
| ASTM D2395- Moisture content, Specific Gravity | |
| Volume by Measurement | |
| Average Moisture Content | 4.69% |
| Average Specific Gravity | 0.581 |
| Density reading | lb/ft3 |
| Median | 36.306 |
| Max. | 40.728 |
| Min. | 30.971 |











Stronger...Stable...Sustainable



We invite you to take a closure look at Tropical Forest Products Advanced Wood Technologies, as well as our wide range of other product offerings at **TropicalForestProducts.com** by scanning the QR code above.

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