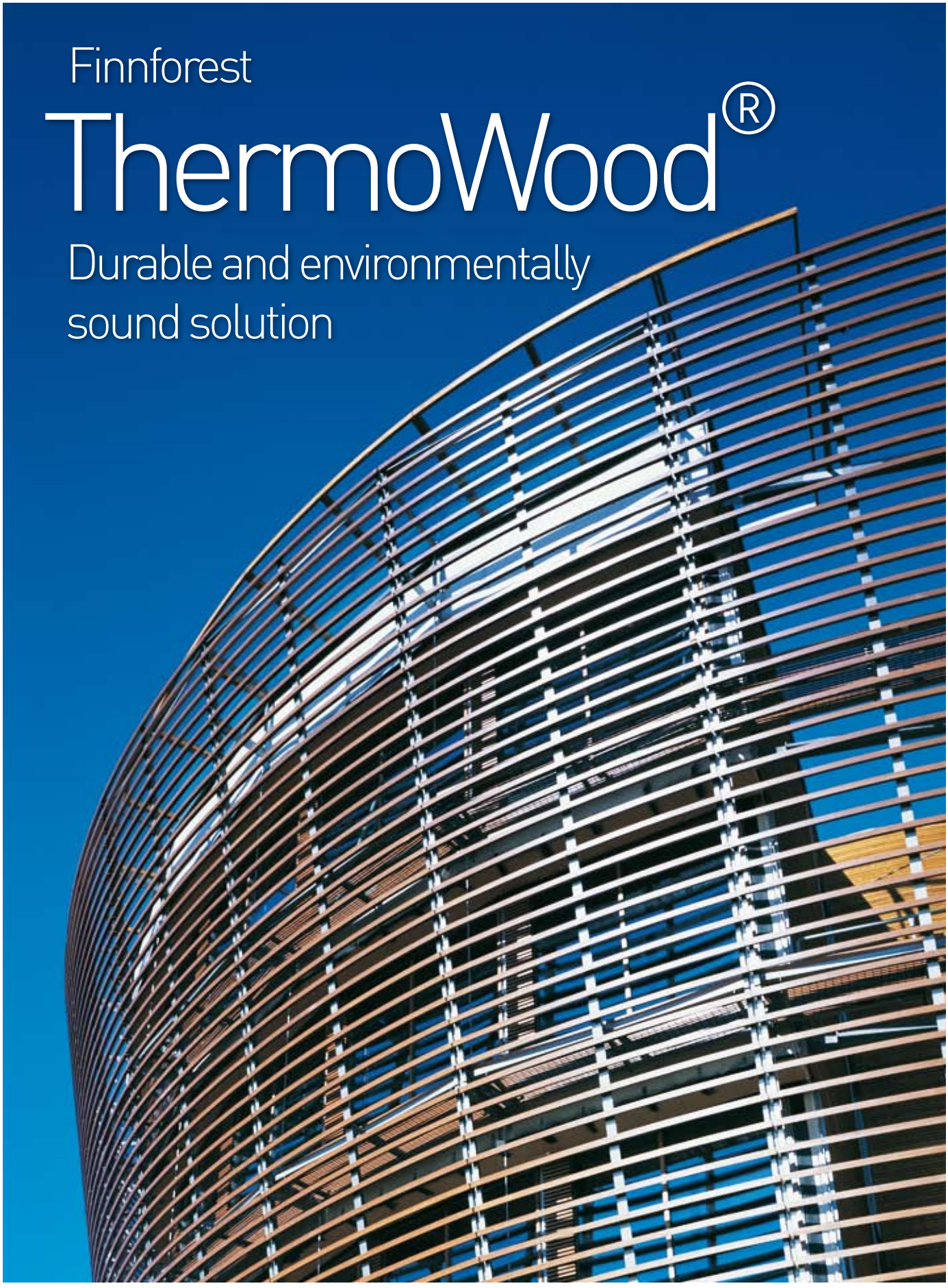
Finnforest

ThermoWood®

Durable and environmentally sound solution



Finnforest

A durable and beautiful choice for various applications

Finnforest ThermoWood® is thermal modified wood. This process has a permanent effect on the wood's properties providing excellent durability, dimensional stability and insulating qualities. The improved features of ThermoWood reduce the potential for shrinkage, warp or twist and ensure that the product keeps a new-like appearance for longer.

Its beautiful, 'finewood look' and dimensional stability mean that the product is ideally suited both for interior decoration and outdoor uses. The thermal modification uses no chemicals, giving you peace of mind that it is good for the environment.

Nature's own raw material

No other material has the character, warmth and individuality of wood. It is unique as it is grown naturally, promotes a healthier environment and lasts a lifetime. Wood is at the heart of sustainable living and at the same time has an aesthetic appeal.

Ecological alternative to endangered tropical forest species

Finnforest ThermoWood® can be used instead of non-sustainable wood species as the thermal modification causes the wood to inherit qualities normally found in hardwoods. Compensatory use saves tropical forest and reduces transportation.

Small carbon footprint compared to competing materials and systems

Throughout its lifecycle, the environmental impact of wood is low: it is the only totally renewable, reusable and recyclable building material that can be disposed of without damaging the environment.

Finnforest ThermoWood® can often be used to substitute for other building materials, such as steel, aluminium or plastic, which require nonrenewable natural resources and large mounts of energy to produce.

Preservative-free product

Finnforest ThermoWood® is naturally resistant to rot and moisture without the use of costly, environmentally damaging chemical treatments.

Using ThermoWood as building material helps mitigate climate change

Building with Thermowood makes the forests an even more effective carbon sink by extending the period that carbon dioxide remains captured from the atmosphere. There are four broad areas that need to be considered when assessing the impact of different building materials on climate change:

- the energy used in the production of the material and the final product
- the insulation properties of the material
- the recycling and final disposal of the building materials
- the carbon balance of the building material

In all these aspects wood's performance is superior to that of other building materials available.

Benefits of Finnforest ThermoWood®

ThermoWood is an excellent product that is stable, chemical free, consistent in quality and beautiful to behold.

Improved durability

The improved durability of Finnforest ThermoWood® makes it an excellent material for exterior products. It has high resistance to most decay fungi.

Increased stability

Swelling and shrinkage of Finnforest ThermoWood® is only 50 % of the corresponding values of untreated Nordic pine and is in a similar range to teak. Thermal modification reduces the potential for twist, warp and cup.

Prolonged service life

Thermal modification removes resin from timber. This, together with improved stability, creates a good base for surface treatment and prolongs the product's service life.

Consistent colour

Finnforest ThermoWood® has a rich brown colour all the way through to the core. As with all softwoods, variances occur due to wood's natural properties such as varying knot and grain patterns. When ThermoWood is exposed to UV-light, it will lose its colour and turn silver grey unless protected by a pigmented surface protection.

Ecological proven

Finnforest ThermoWood® is manufactured from wood which is a renewable natural resource. Thermal modification requires no chemical additives.

Finnforest ThermoWood® has the right to use the PEFC-logo which ensures that the raw material is sourced from sustainable managed forests.

Bioenergy is used in the manufacturing process and according to life cycle analysis ThermoWood has generally a low effect on the environmental load.

- Improved thermal insulation
- Increased dimensional stability
- Better durability against decay

- Ecological proven
- Resin removed
- Consistent colour through the piece

Constant quality and specification

We produce ThermoWood products, which are safe and reliable for the user and the environment.

Responsible and innovative operations

Finnforest ThermoWood® is produced from carefully selected raw materials through a controlled production process to meet the highest quality standards. More than ten years' experience of manufacturing and developing Finnforest ThermoWood® has made it possible to offer the best possible products and solutions for selected end uses.

A member of International ThermoWood Association (ITWA)

Finnforest is entitled to use the registered trademark Finnforest ThermoWood® and the ITWA quality logo by fulfilling the requirements specified under the ThermoWood Concept. The concept creates an entirety that ensures the technical and ecological quality of products sold under the trademark ThermoWood®.

Quality marks

- The material properties of Finnforest ThermoWood® are specified under the KOMO® product certificates 32917/07 and 32919/07 granted by SKH (Stichtung Keuringsbureau Hout).
- Finnforest ThermoWood® External Cladding products are CE marked according to EN 14915:2006.
- Finnforest ThermoWood® Thermo-D external claddings are first wooden façade boards that are certified under Avis Technique 2/06-1215 CSTBat in France.

Wood from sustainably managed forests

The origin of Finnforest ThermoWood® raw material is always traceable. Our wood is procured in a sustainable and legal manner. The raw material is certified under the Finnish Forestry Certification System and the Pan European Forest Certification (PEFC).

Year-round beauty and performance

The exceptional durability and increased stability of Finnforest ThermoWood® makes it suitable for a variety of applications. As no chemicals are added to the timber, it is also an ideal material for applications, where product safety is a high priority.

End-use applications of Finnforest ThermoWood®

Finnforest ThermoWood® Pine Thermo-D for exterior & interior use

- External cladding
- Decking
- Fence and window trims

Finnforest ThermoWood® Pine or Spruce Thermo-S for interior use

- Interior lining
- Sauna benches and lining material

Effects of ThermoWood® process on wood properties by ITWA standard treatment classes (pine and spruce)

TREATMENT CLASS	THERMO-D	THERMO-S
Durability	++	+
Dimensional stability	++	+
Bending strength	–	no change
Colour darkness	++	+

For product range and instruction for usage, please visit www.finnforest.com for more information or contact your local sales office.

Finnforest delivers competitive solutions developed according to customer needs, especially to those in the industrial building and transportation vehicle industry as well as the home and life-style area. Our solutions are based on high-quality and ecological Nordic wood as a raw material, and by using these solutions our customers can contribute to a better environment and quality of life. Our sales total over 1 billion euros and we employ approximately 4,000 professionals in 20 countries. We form one of the core businesses of the Metsäliitto Group.

For sales contacts see www.finnforest.com

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