Thermo Pine

The scientific name of the tree is Pinus sylvestris. This tree species is native to (Northern) Europe. The tree reaches a height of 25 to 35 meters. The timber of a Pine tree is not particularly durably, that is why it is thermally modified. During the modification process the timber is exposed to heat and pressure. With the result that the timber has fewer capacities to bond water molecules, which makes the timber more durable and stable. The tradeoff occurs in the strength of the timber, during the modification process the timber loses around 30% of its original weight. Thermo Pine is great for application in façades and decks, but not for structural purposes.

FelixWood® imports timber in accordance with the EUTR (EU Timber Regulation, No 995/2010) which provides transparent proof of legality. FelixWood® is also FSC® – certified and PEFC – certified, look for our certified products. All Thermo Pine is 100% PEFC – certified.

Technical info

Density (12% mc)	| 380kg/m^3	**Durability class**	| 2
Shrinkage & Swelling	| 3,6% tangential	**Shrinkage & Swelling**	| 1,8% radial
Modulus of Elasticity	| 7411	**Brinell**	| 15 N/mm^2
Modules of Rupture	| 31-42 MPa	**Grain**	| Straight
Impact bending strength	| 0,16 MPa	**Timber surface**	| Smooth

Application

When installing Thermo Pine it is important to keep the following points in mind to ensure the best result.

1. Ventilation:
   Timber absorbs and adsorbs water with the result that the material shrinks and swells. Sufficient space between boards ensures the possibility for ventilation and increases the durability of the timber.
   Practical:
   - Ensure 2cm distance from surrounding objects like walls, stone, poles, etc.
   - Ensure at least 4cm distance from the ground, if the ground stays moist for long periods during the year: keep at least 10cm distance. When using Thermo Pine in the façade 20cm from the ground is recommended.
   - Ensure 6-8mm distance between boards when placing them parallel.
   - Ensure 3mm distance between boards when placing them in the longitudinal direction.

2. Stagnation of water
   Due to the degenerate impact water has on timber stagnation of water around timber has to be avoided.
   Practical:
   - When preparing the location for a deck or fence ensure that water can freely flow away from the area.
   - When installing a deck ensure that it has a 2% decline in the longitudinal direction towards a location where water can be drained (not toward houses, walls, etc).
     READ ME to install a perfect timber deck.

3. Cutting
   When cutting of timber ensure the following aspects:
   - Use sharp blades.
   - Use safety clothes and goggles.
   - Apply end grain sealer to reduce cracks.

4. Mounting
   Due to the natural strength and the hydroscopic tendency of timber it is important to:
   - RECOMMENDED: Pre-drilling, at least 1 to 2cm from the edge of the board. Use the Cobra Smart Bit, for quick and precise pre-drilling.
   - Use at least 2 stainless screws per joist/beam.
   - Place the screws at the beginning/end of the board between 2-4cm of the edge.
   - When placing boards in longitudinal direction align them straight in the middle.

Maintenance

Due to exposure to the elements (sunlight, rain, etc) cracks will appear and the natural color of the timber will fade and turn grey. Regular application of oil, two times per year, is recommended to reduce these effects.

Cleaning of algae in the beginning of spring is recommended, especially regarding decks to avoid a slippery surface.
When cleaning **DO NOT** use steel brushes or high pressure washers.

Particularities

Many timber species react when they come in contact with iron, this results in black spots, not to be confused with mold. Be careful with your tools, only use stainless steel screws, keep lawn fertilizer and cement at a distance. READ ME to remove the spots.

Preventing cracks is impossible, to reduce cracks apply end grain sealer and oil.
This product contains multiple healthy knots.
Resin can, in rarely occasions, be present.