SEATS AND BACKRESTS

Thermo-treated pine square timber 4.2 × 4.2 cm, natural grade

Wood species: Thermo pine.

THERMALLY MODIFIED PINE | BOIS | EXTÉRIEUR | NATUREL



IDENTIFICATION

Dartank reference	**D7W303**
Dartank EAN	**3701839309131**
Material	**Thermally modified pine**
Thickness	**42 mm**
Sales unit	**Piece**

OVERVIEW

Overview

Scandinavian Scots pine thermally modified with heat, steam and water, without chemicals. The wood gains stability, durability and insulating power, suiting cladding, decking, soffits, fences, saunas and interior finishing.

KEY BENEFITS

01
Stability
50% better dimensional stability; about half the shrinkage and swelling.

02
Durability
Very durable against fungi and insects (durability class 2).

03
Chemical-free
Treated with heat, steam and water, without additives or acids.

04
Healthy indoor air
VOCs cut to 16% of unmodified wood, formaldehyde-free.

05
No resin bleed
Heat treatment stops resin bleed and reduces cracking.

06
Insulating
Thermal conductivity of 0.115 W/(m·K), ideal for saunas.

PRODUCT CHARACTERISTICS

Material	**Bois**
Wood species	**Thermo Pin**
Width	**42 mm**
Profile	**S4S**
Class	**Naturel**
Application	**Extérieur**
Length	**sur demande**
Protection	**Thermo-drewno**

THE MATERIAL

Thermally modified pine

Thermally modified Scandinavian Scots pine.

Species	**Scots pine (Pinus sylvestris)**
Origin	**Scandinavia**
Density	**380–420 kg/m³**
Colour	**Light brown to brown**
Moisture content on delivery	**6 % ±2**
Dimensional tolerance	**12 %**
Appearance grades	**AB / Natur**

PERFORMANCE AND TEST RESULTS

Property	Standard	Result
Reaction to fire	EN 13501-1	**D-s2,d0**
Brinell hardness		**1.4 N/mm²**
Screw withdrawal resistance		**19.45 N/mm² ±1,5**
Thermal conductivity		**0.115 W/(m·K)**
Heat-treatment temperature		**180–215 °C**

Property	Standard	Result
Dimensional stability		**+50% versus unmodified wood; about half the shrinkage and swelling**
Natural durability (class)	EN 350	**2**
Resistance to fungi		**Very durable**
Resistance to insects		**Very durable**
Use class	EN 335	**3**
Thermal treatment class		**Thermo-D**
Total VOC emissions (TVOC)		**235 µg/(m²·h)**
Formaldehyde		**No formaldehyde emission**
Chemical additives		**None — heat, steam and water only**

INSTALLATION

Installation

1. **Substructure** Install above ground with sufficient ventilation (use class 3).
2. **Gap between boards** Leave about 4–7 mm between boards (more for the most reactive species).
3. **End gap** Allow about 2–3 mm between board ends.
4. **Screwing** Screws twice as long as the board is thick, driven at 90°, head flush (neither proud nor sunk).
5. **Pre-drilling** Always pre-drill, even with self-drilling decking screws.
6. **Machining** Sawing, nailing and finishing: very good; slow drying with a risk of checking.
7. **Pre-installation check** Starting installation means accepting the product's condition: report any defect before cutting, drilling or treating.
8. **Workmanship** Installation should be carried out by a professional in line with good building practice.

Storage

- **Stacking** Stack boards flat, strapped and/or evenly weighted, allowing air to circulate.
- **Shelter** Store in a dry place protected from water and UV.
- **Stacking** Unsecured storage risks cupping and twisting.
- **Coated boards** Protect painted or stained faces (e.g. with foam film).

MAINTENANCE

Maintenance

Weathering	**Outdoors, the wood weathers to a silvery patina without losing its technical properties.**
Renovation	**To keep the original colour, regularly apply an exterior wood maintenance oil.**
Renovation	**Renovation frequency depends strongly on exposure.**

WARNINGS

- **Structural use** Thermally modified wood becomes more brittle: not recommended for load-bearing structures unless reinforced.
- **Natural material** Thermal modification does not prevent surface algae or mould stains (visual effect only, durability unaffected).
- **Natural material** 100% natural, hygroscopic wood: it swells in wet weather and shrinks in hot weather. Grain and colour vary from board to board.
- **Natural material** Outdoors, weathering, deformation, cracking and dimensional change are natural for wood and are not grounds for a claim.

Non-contractual document. Values are given for guidance; official documents are available on request.