ThermoWood®

registered trademark

owned by

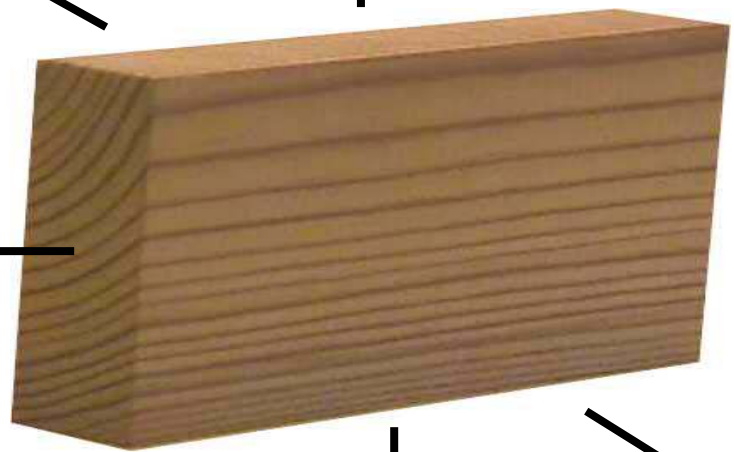
FINNISH ThermoWood ASSOCIATION

2nd International workshop on heat treated Wood
May 6th & 7th, Dresden
“Real life ThermoWood cases and practical working experiences”

FINNISH
ThermoWood
ASSOCIATION

- established in December 2000
- members are either heat treated wood producers or kiln manufacturers
- activities:
  - to enhance the use of ThermoWood®
  - quality control of ThermoWood® production
  - product classification
  - R&D

ThermoWood® - properties



Improved durability against decay

Reduced equilibrium moisture content

Improved weather resistance

Consistent colour through the piece

Resin removed

Improved stability

Slightly reduced bending strength

Reduced splitting streng

ThermoWood® standard classes

Standard classes for softwood and for hardwood:

- **Thermo-S** (”**S**tability”)
- **Thermo-D** (”**D**urability”)

ThermoWood® -production process temperatures -

	Softwoods	Hardwoods
Thermo-S temperature	190 ± 3 °C	185 ± 3 °C
Thermo-D temperature	212 ± 3 °C	200 ± 3 °C

RECOMMENDED END USES OF STANDARD CLASSES

Softwood (pine, spruce)

Thermo-S

- building components
- furnishing and fixtures in dry conditions
- furnitures
- garden furnitures
- door and window components
- sauna

Thermo-D

- cladding
- outer doors
- shutters
- landscape constructions
- sauna and bathroom furnishing
- flooring
- garden furniture

Hardwoods (birch, aspen)

Thermo-S

- furnishing and fixtures
- furnitures
- garden furnitures
- flooring
- sauna

Thermo-D

- end uses of hardwood Thermo-D products are same as Thermo-S have. The colour is darker because of higher treatment temperature

FINNISH ThermoWood ASSOCIATION

Object: Residential garden decking, Espoo, Finland

FINNISH ThermoWood ASSOCIATION

Object:

Residential garden decking, Espoo, Finland

Architect/contractor: Private

Built: Spring 2003

Raw material: Thermo-D Spruce

Product: : 26 x 117 SHP antislip planed boards. Joints with 500 mm span Thermo-D 50 x 100 mm Spruce

Fixings: Stainless steel screws, self drilling 45 mm

Fixing method: Electric screw driver

Surface coating: Water based

Base coat: Yes

Teknos Aquagrund 100. Applied by brush

Final coat: Yes

Teknos Teknol wood oil

FINNISH ThermoWood ASSOCIATION

Object: Tourist information centre, Kotka, Finland

Object:

Tourist information centre, Kotka, Finland

Architect/contractor:

Built: Summer 2002

Raw material: Thermo-D Pine

Product: 26 x 92 SHP planed boards

Fixings: Galvanized nails 60 mm

Fixing method: Hammer

Surface coating: Water based

Base coat: Yes

Final coat: Yes

Pigmented water soluble stain

Object: Residential building, Kotka, Finland

Photo: Antero Tenhunen

Object:

Residential building, Kotka, Finland

Architect/contractor:

Built: Spring 2002

Raw material: Thermo-D Spruce

Product: 27 x 145 UTV fine sawn surface

Fixings: Galvanised 50 mm nails

Fixing method: Compressed air nail gun

Surface coating: Water based

Base coat: Yes

Teknos Aquagrund 100 with pigment

Applied by brush prior to fixing

Final coat: Yes

Teknos Pigmented Kuulto-Visa

Applied by brush after fixing

FINNISH ThermoWood ASSOCIATION

Object: Residential building in Goch, Germany

Object: Residential building in Goch, Germany

Architect/contractor: Private

Built: 2003

Raw material: Thermo-D Pine

Product: Trapeze 25 x 140 with 30^0 angle

Fixings: Unknown

Fixing method: Unknown

Surface coating: Unknown

Base coat: Unknown

Final coat: Unknown

FINNISH ThermoWood ASSOCIATION

Object: Fredrika Bremer School building, Stockholm, Sweden

Object:

Fredrika Bremer School, Stockholm, Sweden

Architect/contractor: Skanska

Built: Summer 2003

Raw material: Thermo-D Spruce

Product: 21 x 142 TGV planed

Fixings: Stainless steel nails, 75 mm

Fixing method: Compressed air nail gun

Surface coating: Water based

Base coat: No

Final coat: Yes

Nordsjö Tinova Lasyr with 60 % teak.

Applied once before installation

FINNISH ThermoWood ASSOCIATION

Object: The Princess Royal Sports Arena, Boston, England

FINNISH ThermoWood ASSOCIATION

Object:

The PRSA arena, Boston, England

Architect/contractor:

BGP McConaghy Architects, Bristol

Built: Will be completed in June 2004

Raw material: Thermo-D Pine

Product: 20 x 117 UTK planed profile

Fixings: Stainless steel nails

Fixing method: Nails applied by air gun

Surface coating: Yes

Base coat: Yes

Akzo Nobel Sikkens Cetol Novatech Light Oak

Applied by brush prior to fixing

Final coat: Yes

Akzo Nobel Sikkens Cetol Novatech Light Oak

Applied by brush after fixing

FINNISH ThermoWood ASSOCIATION

Object: Motorway noice barrier, Arnhem, Holland

Object:

Motorway noice barrier, Arnhem, Holland

Architect/contractor: Dutch road administration

Built: Summer-fall 2002

Raw material: StellacWood D2 Pine

Product: 32 x 142 UTK planed surface, groove modified

Fixings: Prefabricated elements

Fixing method: Stainless steel nails with compressed air nail gun

Surface coating: Oil based

Base coat: Yes

Applied by brush prior to fixing

Final coat: Yes

FINNISH ThermoWood ASSOCIATION

Object: Apartment building, Val Thorens, France

FINNISH ThermoWood ASSOCIATION

Object: Apartment building,
Val Thorens, France

Architect/contractor: Bové Company

Built: Summer 2003

Raw material: StellacWood D2 Pine

Product: 20 x 142 UTK planed

Fixings: Compressed air nail gun

Fixing method: Inox stainless steel nails

Surface coating: None

Base coat: None

Final coat: None

FINNISH ThermoWood ASSOCIATION

Object: Sauna building, Lappeenranta, Finland

Object: Sauna building in Lappeenranta, Finland

Architect/contractor: University of Technology

Built: Spring 2001

Raw material: Thermo-S Aspen

Product: 26 x 92 SHP bench boards
15 x 88 STP wall panels

Fixings: Stainless steel screws for benches (hidden), Stainless steel nails for wall panels (hidden)

Fixing method: Compressed air nail gun and electric screw driver

Surface coating: Yes

Base coat: None

Final coat: Yes

Sauna protection oil

Object: “Leithändler hauptsitz” flooring, Kerava, Finland

Object:

“Leithändler hauptsitz” flooring, Kerava, Finland

Architect/contractor: Puumerkki Ltd/StoraEnso

Built: Spring 2002

Raw material: Thermo-S Birch

Product: 19 x 92 HLL planed with bevels

Fixings: Hooks into the grooves of the boards

Fixing method:

Kiilto Oy mosaic adhesive and hooks

Surface coating: Sanding and varnish

Base coat: None

Final coat: Yes

Varnishing with water soluble lacquer

www.thermowood.fi