



Stora Enso ThermoWood® Cladding

Stora Enso ThermoWood®

– A natural choice for cladding

Thermally modified timber “ThermoWood” is a durable, stable and non-polluting building product. It is attractive, modern and provides excellent performance in a wide range of applications. It is one of the most stable wood cladding materials in the market.

ThermoWood is an ideal choice for use as a cladding material. The significantly improved resistance to fungi attack offers long term durability without the need for chemical treatment. Due to a dramatic increase in dimensional stability, using ThermoWood as a cladding material allows for greater choice in specifying with much wider dimensions than traditional softwoods. ThermoWood cladding can bring new and exciting aesthetic design options.

Stora Enso ThermoWood is produced from thermally modified Nordic Spruce or Pine which has been sourced from certified forests. It has a warm, attractive appearance which can be coated with coloured paints or translucent stains, alternatively it can be left to turn to a natural grey colour, however some form of surface coating is recommended to lengthen the service life.

Stable. ThermoWood maintains its dimensional stability when exposed to variances in humidity. Distortion, swelling and shrinking reduces remarkably. A stable substrate is far better when using surface coatings.

Durable. Thermal modification of wood significantly improves its resistance to rot and fungal decay. The process ensures that all the material is treated not just the surfaces.

Ecological. ThermoWood is an environmentally friendly choice. No chemicals are used in the treatment process and wood itself is a renewable material. Disposal of off-cuts can be by burning or into the normal waste system. ThermoWood material is PEFC certified.

Quality-checked. ThermoWood is produced with strict quality control through the whole process. It is certified with KOMO quality certification and produced within the ISO 9001 quality system.

No leaching. As no substances are added during the ThermoWood process, no chemical leaching will occur. In addition, as the resin is removed during the process, the problem of resin leakage through the knots or pitch pockets is removed.



New Broughton School, Milton Keynes, UK

The new school built in Broughton, Milton Keynes used ThermoWood cladding as a weather screen in the upper sections of the building. The cladding is profiled to 21 x 95 mm (1" x 4") and is beveled on the edges to allow for rain to run off. Gaps have been left between each board to allow for good airflow at all times. The ThermoWood combines very well with the traditional red brick and gives a very modern and aesthetically pleasing appearance.



New Telecabin station, Vallorcine, France

The design and construction of this building completed in October 2004 has maximised the advantages of the great stability of ThermoWood cladding. The cladding boards have been machined to 28 x 220 mm (5/4" x 9") and brushed on the outer surface to give a natural, textured surface. The ThermoWood cladding has combined well with other natural building materials such as stone, and it blends perfectly into the mountain environment. No paint has been applied to the cladding and the intention is to allow the material to gradually grey and weather to fit in with the local surroundings. The building was designed by DCSA Thierry D'Oleon.



Working with ThermoWood

ThermoWood is easy to work with. It is essential that tools are sharp for sawing and planing. The material has similar working properties as wood species such as Western Red Cedar and some hardwoods. When planing it is essential to profile the weather exposed surface to the outer face of the board.

ThermoWood can be fixed by nailing or screwing, use of a compressed air nail gun brings the best results. Screws can be applied using an electric driver, when screwing close to the ends some predrilling may be needed. In all cases where the material is used outside – rust free nails and screws MUST be used.

ThermoWood cladding can be coated with medium to high build coatings, if you desire to deepen the warm colour of ThermoWood. If a natural grey appearance is required it is still advisable to apply periodic coats of wood oil to protect the surface. Further advice on coatings can be sought from major coatings manufacturers.

As with all building materials that are exposed to changing climatic conditions, periodic maintenance is required to maintain the nice appearance and lengthen the service life.

Recommended service life of Stora Enso ThermoWood

The service life of any building material depends very much on the design and maintenance level of the product in final end use. According to the British standard 8417, non chemically treated wood to be used in external joinery, usage class 3 (EN 335-1), should have a natural durability of at least 3 to obtain a desired service life of 30 years. The differing climatic and service environments have a major impact on the actual service life of building products.

Stora Enso ThermoWood is available in two different treatment levels.

- 190 °C (374 °F) "Thermo-S" treatment gives durability class 3 (moderately durable, EN 350-1)
- 212 °C (414 °F) "Thermo-D" treatment gives durability class 2 (durable, EN 350-1)



Examples of cladding products

Due to the high stability of Stora Enso ThermoWood, the cladding can be made in finished sections as wide as 190 mm (8").

Rebated bevel siding – fine sawn surface



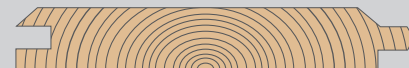
21 x 138/190 (1" x 6"/8")

Rebated shiplap cladding – planed surface/fine sawn surface



19 x 120/142 (1" x 5"/6")

T & G, V joint cladding – planed surface



19 x 118/142 (1" x 5"/6")

Various corner trim and batten material



42 x 42
(2" x 2")



21 x 95 (1" x 4")
32 x 100 (5/4" x 4")

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