

Information Paper

ThermoWood® cladding

A technical summary

Ed Suttie

This Information Paper reviews the modified wood product, ThermoWood®, focussing on its use as exterior cladding and giving the results of long-term field trials. It examines the properties of this aesthetically pleasing material and its environmental impacts, coating performance, service life prediction and specification for exterior cladding. The Information Paper will help building owners, architects and designers to decide on the suitability of ThermoWood® for new domestic and commercial construction and refurbishment projects. It will also be of interest to all those involved in specifying ThermoWood® materials.

Introduction

There is ever-increasing pressure to reduce the environmental impacts associated with construction and the products and materials used in buildings. Wood-based products with enhanced performance characteristics offer an attractive route to lower-impact construction products and buildings. ThermoWood® is a thermally modified timber (TMT), which is produced under licence and with the guidance of the International ThermoWood Association. This process began in Finland, the centre of ThermoWood® production, but is now used in several countries.

Modified wood products^[1] are increasingly being considered for end uses in domestic and commercial buildings in the UK. The key application, and one that is likely to grow, is cladding (Figure 1). Modified wood products such as ThermoWood® offer aesthetically pleasing materials with enhanced performance characteristics that can extend maintenance intervals, bringing added value for the building owner.



Figure 1: ThermoWood® cladding

What is ThermoWood®?

DD CEN/TS 15679:2007^[2] defines TMT as:

'Wood at which the composition of the cell wall material and its physical properties are modified by the exposure of temperature higher than 160°C and conditions of reduced oxygen availability. The wood is altered in such a way that at least some of the wood properties are permanently affected through the cross section of the timber.'