

Standardisation, Quality Assurance, CE Marking of TMT

Definition

See Fact Sheet "Definition of Terms: TMT, Thermowood", TMT.01

CEN/TS 15679 „Thermally Modified Timber“

The European Technical Specification CEN/TS 15679 „Thermally Modified Timber – Definitions and Characteristics“ has been published 2007 (CEN/TS have the status of a pre-issue). CEN/TS 15679 was confirmed in 2013.

If TMT is declared as such with reference to CEN/TS 15679, it is the manufacturer's obligation to provide for its internal production control, to document several data of production (inter alia, stages of treatment, moisture content, cracking) and mark its products stating the following information: manufacturer's name, retraceability of the production plant and internal production control, assortment or specification, reference to the CEN/TS, wood species as well as use class and scope of application.

DIN 68800 "Wood Preservation"

Standard DIN 68800 "Wood Preservation", which consists of four parts, has completely been reviewed. "Part 1: General" was published in October 2011 and Parts 2-4 were published in February 2012. Annex A (informative) to Part 1 contains basic information on the thermal or chemical modification for the preservation of wood.

Test, Application and Product Standards

A project on the standardisation of thermally modified timber (TMT) was performed in 2006 under the direction of DIN e. V. Thereby, more than 250 test, application and product standards from the field of wood were reviewed with regard to their relevance to TMT and critical items or deficits were determined. The need for clarification and adaptation became obvious especially with view to the requirements or specifications of wood moisture in correlation with dimensions and strengths.

The notes that resulted do not only serve standardisation efforts, but appear to be useful tools for the users of standards, e.g., in planning, in designing scopes of performance or in drafting purchase, supply or works contracts. A 2007 follow-up project especially focused on the requirements of CE marking and of the Building Products Act.

Reports can be obtained from DIN (www.din.de) or IHD (www.ihd-dresden.de).



CE Marking

The use of TMT in structural products, to which harmonized European standards apply, e.g., to flooring or windows, requires CE marking. Table 1 contains a selection of harmonized EN for applications where TMT can be used and for which CE marking is compulsory.



Table 1: Harmonised standards for timber products (a selection)

Standard	Title/contents
EN 13830	Curtain walling – Product standard
EN 13964	Suspended ceilings – Requirements and test methods
EN 14915	Solid wood panelling and cladding – characteristics, evaluation of conformity and marking
EN 14351-1	Windows and doors – product standard, performance characteristics – Part 1: Windows and external pedestrian doorsets without resistance to fire and/or smoke leakage characteristics;
EN 14342	Parquet and wood flooring. Characteristics, evaluation of conformity and marking
EN 14388	Road traffic noise reducing devices – specifications

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Quality Assurance

As a rule, manufacturers have at their disposal their own internal quality assurance or production control, respectively. Special systems of quality assurance by external facilities have been established in Finland, the Netherlands and Germany:

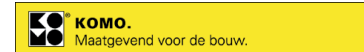
Quality label TMT (registered as an EU community trademark)
Issued by: Entwicklungs- und Prüflabor Holztechnologie GmbH (EPH)



ThermoWood® Production and Product Quality Control
Issued by: International Thermowood Association



KOMO® product certificate "Timber modification"
Issued by: Stichting KOMO (the Netherlands)



Summary

Up to now, TMT has not been covered by standards. Deviations of currently applicable standards or differences towards untreated timber exist, especially with view of wood moisture (equilibrium moisture in various climates). Also, its modified (mostly reduced) strength needs to be borne in mind.

Wood-processors and clients should be provided with at least a minimum of information regarding characteristic specialties or deviations from standards. When selecting TMT products for use in a certain application, specific property profiles should be taken into consideration.

Bibliography

- EN 335:2006-10: Durability of wood and wood-based products – Definition of use classes
- DIN EN 350-1:1994-10: Durability of wood and wood-based products – Natural durability of solid wood – Part 1: Guide to the principles of testing and classification of the natural durability of wood
- DIN EN 350-2:1994-10: Durability of wood and wood-based products – Natural durability of solid wood – Part 2: Guide to the natural durability and treatability of selected wood species of importance in Europe.
- EN 460:1994-10: Durability of wood and wood-based products – Natural durability of solid wood. Guide to the durability requirements for wood to be used in hazard classes
- DIN 68800-1:20011-11: Wood Preservation – Part 1: General
- Plaschkies, K.; Scheiding, W.; Weiß, B.; Jacobs, K.; Dauerhaftigkeit verwendungsbezogen ermitteln. Biologische Dauerhaftigkeit von thermisch modifizierten Hölzern – Ergebnisse aus Labor- und Freilandprüfungen. Holz-Zentralblatt 136(2010)21, pp. 524-525
- Plaschkies, K.; Scheiding, W.; Jacobs, K.; Weiß, B.: Durability of thermally modified timber assortments against fungi – results from a 6-year field test in comparison with results from lab tests. 5th European Conference on Wood Modification. Riga September 20th-22nd 2010, edited by Hill, CAS.; Militz, H.; Westin, M. [eds.]