

KOMO[®] product certificate

Semi-manufactured product

SKH

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MODIFIED TIMBER

Number: 32941/21
Issued: 22-01-2021
Replaces: 32941/19

Producer

Oy Lunawood Ltd.
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Factories at

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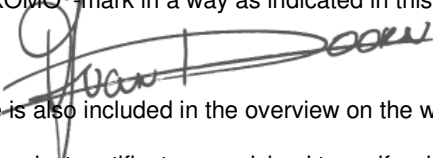
Declaration of SKH

This product certificate is based upon AD 0605 'Modified timber' dd. 20-06-2018, issued by SKH, in conformity with the SKH Regulations for Certification.

SKH declares that:

- there is a legitimate confidence that modified timber manufactured by the producer continuously complies with the technical specifications laid down in this product certificate, provided that the modified timber have been marked with the KOMO[®] mark in a way as indicated in this product certificate.

For SKH



drs. H.J.O. van Doorn, director

The certificate is also included in the overview on the website of the KOMO foundation: <http://www.komo.nl>.

Users of this product certificate are advised to verify whether this certificate is still valid; consult the SKH-website: <http://www.skh.nl>.

This product certificate consists of 4 pages.

The Dutch version shall be consulted in case of doubt.



The following has been assessed:

- quality system
- product
- Periodic check

GEMODIFICEERD HOUT

1 PRODUCT SPECIFICATION

1.1 Description of product

The definition of Luna Thermo-D in this KOMO[®] product certificate is: the product of thermally modified European spruce and European pine, botanically derived from resp. *Picea abies* L. Karst. and *Pinus sylvestris* L. treated according to the thermowood process treating class D2. By means of the modification process the durability of the timber has been increased in relation to the natural durability of European spruce and European pine, whereas a number of other properties of the timber have changed.

The performances in respect of the properties laid down in AD 0605 "Modified timber" are laid down in the "Technical specification".

2 TECHNICAL SPECIFICATION

2.1 Durability

The durability of Luna Thermo-D complies at least with the requirements for durability class 2 (durable), tested in accordance with EN 350-1 for the classes 1, 2 and 3 according to EN 335.

2.2 Timber moisture content

Luna Thermo-D is supplied with a moisture content of $6 \pm 2\%$.

2.2.1 Equilibrium moisture content

The equilibrium moisture content of Luna Thermo-D at a relative humidity of 65%, and a temperature of 20°C is $6 \pm 2\%$. At 98% relative humidity the equilibrium moisture content is below 16%.

2.2.2 Water absorption

When applying Luna Thermo-D in contact with (rain) water the moisture absorption is equal to that of untreated timber. This certificate does not express an opinion about the speed of water absorption.

2.3 Dimensional stability

The swelling in radial and tangential direction of Luna Thermo-D shall, when absorbing moisture, be at least 50% less, compared with untreated European spruce and European pine.

2.4 Glue ability

This certificate does not express an opinion about the glue ability.

2.5 Finish

The quality declaration does not express an opinion about the finishing of Luna Thermo-D.

2.6 Color value

The quality declaration does not express an opinion on color value of Luna Thermo-D

2.7 Density

The density of Luna Thermo-D > at 20 °C and 65% RH is 560 kg/m³.

2.8 Mechanical properties

In particular the bending strength of the treated timber shall, by thermal modification, be less, compared with untreated timber. This certificate does not express an opinion about the degree of decrease in mechanical properties.

2.9 Fire behaviour

In relation to its reaction to fire behaviour Luna Thermo-D is classified as D-s2, d0 according to EN 13501-1:2002 provided that the thickness is not less than 21 mm.

GEMODIFICEERD HOUT

3 ADDITIONAL TECHNICAL SPECIFICATION IN THE CONTEXT OF APPLICATION IN FAÇADE ELEMENTS

3.1 Burglary Resistance

This certificate does not express an opinion of the application of Luna Thermo-D in the production of burglary resistant façade elements.

3.2 Thermal Conductivity

This certificate does not express an opinion of Luna Thermo-D and thermal conductivity.

4 Marking

Luna Thermo-D shall be marked per package with the KOMO[®]-mark.

The execution of this mark is as follows:

- KOMO[®] trademark or logo;
 - no. **32941**;
 - modified timber, durability class 2;
 - use class: 1, 2 and 3 (possibly supplemented with colour: blue and letter code L).
- Location of the mark: clearly visible on each package.



5 SUGGESTIONS FOR THE USER

5.1 On delivery of the modified timber inspect whether:

- the products comply with the contract of sale;
- the mark and the manner of marking are correct;
- the products do not show any visible defects due to transport or similar causes.

If the products are rejected on the basis of the above, contact shall be made with:
Oy Luna Wood Ltd. and if desirable: The certification-body SKH.

5.2 Product certificate

It is the duty of the producer to make sure that the buyer receives a copy of the complete product certificate.

5.3 Applications and use

Transport, storage and deployment shall be effected in accordance with the working instructions to be provided by Oy Lunawood or available on the website of Oy Lunawood.

5.4 Period of validity

Consult the SKH-website: <http://www.skh.nl> to verify whether the quality declaration is still valid.

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DOCUMENTS

AD 0605: 2018
NEN-EN 335:2013

NEN-EN 338:2016
NEN-EN 350:2016

NEN-EN 13501-1:2007+A1:2009

NEN-EN 350-1: 1994

Modified Timber;
Durability of wood and wood-based products - Use classes: definitions, application to solid wood and wood-based products;
Structural timber - Strength classes;
Durability of wood and wood-based products - Testing and classification of the durability to biological agents of wood and wood-based materials;
Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests;
Durability of wood and wood based products – natural durability of solid wood – Part 1: Guide to principles of testing and classification of the natural durability of wood.