

KOMO[®] product certificate

Semi-manufactured product

SKH

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MODIFIED TIMBER

Number: 32941/17
Issued: 01-01-2017
Replaces: 32941/11

Producer

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Factories at

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Kantatie 191
64260 KASKINEN
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SKH declaration

This product certificate has been issued by SKH on the basis of BRL 0605 'Modified timber' dd. 31-01-2003, in accordance with the SKH Regulations for Certification.

SKH declares that there is a legitimate confidence that the modified timber manufactured by the producer continuously complies with the technical specifications laid down in this product certificate, provided that the modified timber has been marked with the KOMO[®]-mark depicted hereunder, 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: www.komo.nl.

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

This product certificate consists of 3 pages.

The Dutch version shall be consulted in case of doubt.



The following has
been assessed:
quality system
product
Periodic control

MODIFIED TIMBER

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, European pine and Radiata pine, botanically derived from resp. *Picea abies* L. Karst., *Pinus sylvestris* L. and *Pinus radiata* D, 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, European pine and Radiata pine, whereas a number of other properties of the timber have changed.

The performances in respect of the properties laid down in BRL 0605 "Modified timber" are laid down in "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.

2.2 Timber moisture content

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

2.3 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%.

2.4 Water absorption

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

2.5 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, European pine and Radiata pine.

2.6 Glue ability

The quality declaration does not express an opinion about the glue ability.

2.7 Hardness

The average Janka hardness is less than 29 MPa, the average Brinell hardness is 15 ± 2 MPa.

2.8 Finish

The quality declaration does not express an opinion about the finishing.

2.9 Mechanical properties

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

2.10 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.

2.11 Emission of harmful materials

No harmful materials have been added to Luna Thermo-D. Scrap timber can be processed as untreated timber.

2.12 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;
- hazard class: colour: blue and letter code L.



Location of the mark: clearly visible on each package.

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3 SUGGESTIONS FOR THE USER

3.1 On delivery of the Luna Thermo-D 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, the user should contact:
Oy Lunawood Ltd. and if desirable The certification-body SKH.

3.2 Product certificate

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

3.3 Applications and use

Transport, storage and deployment shall be effected in accordance with the working instructions of the producer.

3.4 Period of validity

Consult the SKH website <http://www.skh.nl> to verify whether the product certificate is still valid.