

LICENSED SKH BA-CONNECTION DOCUMENT

BUILDING ELEMENTS ASSEMBLED WITH FINGERJOINTED TIMBER FOR LOAD BEARING APPLICATIONS

Producer

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Declaration of SKH

This BA-connection document is issued on the basis of SKH Directive Connection Building Act 7520 'Building elements assembled with fingerjointed timber for load bearing applications' dd. 10-11-2016, in accordance with the SKH Regulations for Certification.

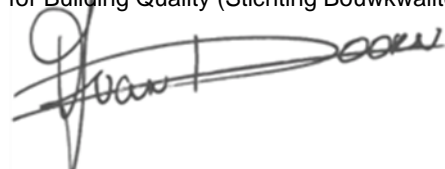
The connection of the building elements assembled with fingerjointed timber for load bearing applications to the Building Act has been assessed and the principles for the assessment are reassessed periodically.

Based on this, SKH declares that the building elements assembled with fingerjointed timber for load bearing applications comply with the requirements of the Building Act included in this BA-connection document, provided that:

- the technical specifications and application conditions defined in this BA-connection document are met;
- the production of the building elements assembled with fingerjointed timber for load bearing applications is carried out according to the conditions and/or processing methods stipulated in this BA-connection document.

In the context of this Licensed BA-connection document, no inspection of the manufacture of the fingerjointed timber for load bearing applications takes place, neither of its composition and/or the assembly into building elements.

This BA-connection document is a licensed quality declaration for the Building Act 2012 according to the Tripartite Agreement in 2015 (Official Gazette (Staatscourant) 8987, 2015) and the Housing Act. This BA-connection document is included in the 'Overview of licensed quality declarations for the building industry' on the website of the Foundation for Building Quality (Stichting Bouwkwiteit;www.bouwkwiteit.nl).



drs. H.J.O van Doorn, director



Users of this BA-connection document are advised to verify its validity; consult the SKH-website: <http://www.skh.nl>.
This BA-connection document consists of: 8 pages.

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1 INTRODUCTION

This BA-connection document provides the connection for building elements assembled with fingerjointed timber for load bearing applications according to 'SKH Directive 7520 connection Building Act for building elements assembled with fingerjointed timber for load bearing applications' to the Dutch Building Act.

It concerns the fingerjointed timber for load bearing applications of Lamineerfabriek Doornenbal Veenendaal B.V. h.o.d.n. Woodjoint.

This BA-connection document is prepared by SKH, which is accredited by the Dutch Council for Accreditation as certification body for the 'SKH Directive 7520 connection Building Act for building elements assembled with fingerjointed timber for load bearing applications'.

This document is valid only, when the fingerjointed timber for load bearing applications are implemented and applied according to the conditions set out in this connection document. As a licensed quality declaration according to Building Act art. 1.11, this connection document provides sufficient evidence for the customer that the fingerjointed timber for load bearing applications used in building elements comply with the requirements of the Building Act in their application.

This connection document is made up of two parts. The first part deals with the connection to the Building Act. The second part, in the form of an Annex, deals with the technical specification and further specification of the applicable conditions for application and processing guidelines.

2 SUGGESTIONS FOR THE USER

Upon delivery of the fingerjointed timber for load bearing applications, inspect whether:

- the fingerjointed timber for load bearing applications complies with the specification and conditions for application as included in this BA-connection document;
- the material delivered is as agreed upon;
- the products are free of visible defects as a results of transport, handling and such;
- processing guidelines and/or maintenance requirements are available.

In case the materials are rejected based on (one of) the points mentioned above, Lamineerfabriek Doornenbal Veenendaal B.V. h.o.d.n. Woodjoint should be contacted and if desirable, the certification body SKH.

3 PERFORMANCE BASED ON THE BUILDING ACT

BUILDING ACT ENTRY (ONLY FOR BUILDING PURPOSES)

No.	Section	Limiting value/ method of determination	Performance according to quality declaration
2.1	General strength of the building construction	Ultimate threshold building construction, calculation according NEN-EN 1995-1-1 (including national annex), NEN-EN 1990 (including national annex) and NEN-EN 1991-1-1/3/4 (including national annex)	Application examples stating the performance which proves that the requirements imposed are met
2.2	Strength during fire*	Resistance to collapse during fire of building constructions according NEN-EN 1995-1-2 (incl. national annex), NEN-EN 1990 (incl. national annex) and NEN-EN 1991-1-2 (incl. national annex)	Further specification depending on product/system or mention of project-based calculations or drawings which prove that the requirements imposed are met
2.9	Restriction of development of fire and smoke	Indoor surface	Complies with Building Act
		Outdoor surface*	Optional mention of compliance with Building Act
		Walkable surface*	No performance determined
		Part of construction	No performance mentioned
3.9	Restriction of the presence of harmful substances and ionising radiation	According to Ministerial regulations	No performance mentioned

* optional

3.1 PERFORMANCE FROM A SAFETY VIEWPOINT

GENERAL STRENGTH OF THE BUILDING STRUCTURE; BA Section 2.1

3.1.1 Strength of the building structure; BA Articles 2.2, 2.4 and 2.5b

The ultimate limiting condition of the building structure must be calculated in accordance with NEN-EN 1995-1-1 (incl. national appendix) in combination with the loads and load combinations described in NEN-EN 1990 (incl. national appendix) and NEN-EN 1991-1-1/3/4 (incl. national appendix). In this, for the determination of the performance of the fingerjointed timber for load bearing applications, the strength class (according to NEN-EN 15497) is used.

STRENGTH DURING FIRE; BA Section 2.2

3.1.2 Strength during fire; BA Articles 2.10 and 2.11

The strength during fire of building elements assembled with fingerjointed timber for load bearing applications has not been determined.

LIMITING THE DEVELOPMENT OF FIRE AND SMOKE; BA Section 2.9

3.1.3 Indoor surface; BA Article 2.67

In application in structural elements (such as walls and ceilings) bordering on the indoor air, BA Article 2.67 distinguishes among 'extra-protected escape route', 'protected escape route' and 'other':

Extra-protected escape route

Fingerjointed timber for load bearing applications may not be used in structural elements (such as walls and ceilings) bordering on the indoor air.

Protected escape route

Fingerjointed timber for load bearing applications of 22 mm and thicker may be used in structural elements (such as walls and ceilings) bordering on the indoor air in the following usage functions:

- Other residential function
- Other meeting function
- Other healthcare function
- Other industrial function
- Office function
- Educational function
- Sports function
- Retail function
- Other usage function

Other

Fingerjointed timber for load bearing applications of 22 mm and thicker may be used in structural elements (such as walls and ceilings) bordering on the indoor air in the following usage functions:

- Residential function
- Meeting function
- Healthcare function
- Other industrial function
- Office function
- Accommodation function
- Educational function
- Sports function
- Retail function
- Other usage function

Application conditions

Fingerjointed timber for load bearing applications with a thickness less than 22 mm may not be used in structural elements adjacent to the indoor air (such as walls and ceilings).

3.1.4 Outdoor surface; BA Article 2.68

When applied in structural elements adjacent to the outdoor air (such as walls), BA Article 2.68 distinguishes among 'extra-protected escape route', 'protected escape route' and 'other':

Extra-protected escape route

Fingerjointed timber for load bearing applications may not be used in structural elements adjacent to the outdoor air (such as walls).

Protected escape route

Fingerjointed timber for load bearing applications of 22 mm and may be used in that part of structural elements (such as walls) adjacent to the outdoor air, which is situated not higher than 13 m in the following usage function:

- Other residential function

Fingerjointed timber for load bearing applications of 22 mm and thicker may be used in that part of structural elements (such as walls) adjacent to the outdoor air, which is not situated higher than 13 m, with the exception of the part from the adjacent terrain to a height of at least 2.5 m of a structure of which a floor intended for people lies at least 5 m above the measurement level, in the following usage functions:

- Other meeting function
- Other healthcare function
- Industrial function
- Office function
- Educational function
- Sports function
- Retail function
- Other usage function

Other

Fingerjointed timber for load bearing applications of 22 mm and thicker may be used in that part of structural elements (such as walls) adjacent to the outdoor air, which is situated not higher than 13 m in the following usage function:

- Other residential function

Fingerjointed timber for load bearing applications of 22 mm and thicker may be used in that part of structural elements (such as walls) adjacent to the outdoor air, which is not situated higher than 13 m, with the exception of the part from the adjacent terrain to a height of at least 2.5 m of a structure of which a floor intended for people lies at least 5 m above the measurement level, in the following usage functions:

- Residential function in a residential building
- Residential function for care with a UA greater than 500 m²
- Meeting function
- Cell function
- Healthcare function
- Industrial function
- Office function
- Accommodation function
- Educational function
- Sports function
- Retail function
- Other usage function

Application conditions

Fingerjointed timber for load bearing applications with a thickness less than 22 mm may not be used in structural elements adjacent to the outdoor air (such as walls). The fingerjointed timber for load bearing applications is not suitable as part of the outer side of a separation between two fire compartments in the context of the 'WBDBO' (Resistance against fire penetration and fire spread) according to NEN 6068.

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3.1.5 Walkable surface; BA Article 2.69

The use for fingerjointed loadbearing applications for the upper surface of a floor, stairs or an access ramp according BA Article 2.69 is not determined.

REDUCING THE PRESENCE OF HARMFUL SUBSTANCES AND IONISING RADIATION; BA Section 3.9

3.1.6 Ministerial regulations; BA Article 3.63

Due to lack of ministerial regulations, no statements are made.

4 BUILDING ACT

The statements in this connection document are based on the following version of the Building Act:

Building Act 2012 Stb. 2011 416, 676; Stb. 2012, 125, 256, 441, 643; Stb. 2013, 75, 244, 462; Stb. 2014, 51, 211, 232, 233; 333, 342, 358, 539; Stb 2015, 92, 249, 425 and the Ministerial Regulations Stcrt. 2011, 23914; Stcrt. 2012, 13245 Stcrt. 2013, 5457, 16919; Stcrt. 2014, 4057, 34076, 37003; Stcrt. 2015, 17338, 45221

Annex A: technical specification and conditions for application

A.1 TECHNICAL SPECIFICATION

The statements in this licensed BA-connection document are based on the fingerjointed timber for load bearing applications as described in this technical specification. The statements are not valid for fingerjointed timber for load bearing applications which deviates from this specification.

A.1.1 Characteristics of fingerjointed timber for load bearing applications

The connection to the Building Act, elaborated in this declaration, is based on the following characteristics of the fingerjointed timber for load bearing applications, as declared by the supplier:

Characteristic	Basis for connection
Restriction of development of fire and smoke	The fingerjointed timber for load bearing applications has a fire class of at least D and smoke class of at least s2 according to NEN-EN 13501-1
Reducing the presence of harmful substances	The fingerjointed timber for load bearing applications complies with the requirements of at least class E1 according to NEN-EN 15497 Annex A

With regard to the essential characteristics as described in Annex ZA of the harmonised European standard the values should be used, which are included in the declaration of performance of the specific manufacturer. Mention of the characteristics above is only to express the underlying principles for making the connection to the Building Act. Essential characteristics are not part of the declaration of this BA-connection document.

A.1.2 Product specification

Wood

In the framework of this connection document the following wood species may be used:

- Spruce with Angelim vermelho (*Dinizia excelsa*);
- Spruce with Azobé (*Lophira alata*);
- Spruce with Okan (*Cylicodiscus gabunensis*);
- Spruce with Tali (*Erythrophleum ivorense*);
- Spruce with Accoya®;
- Platowood Fraké.

The moisture content of wood for structural applications should be in accordance with the equilibrium moisture content of the application.

Glue

Glues should comply with the requirements of EN 301. A distinction is made between glue type I and type II. Glue type I is obligatory when the construction is exposed to temperatures > 50 °C and/or the construction is applied in climate class III. Glue type II is suitable for use in climate classes I and II.

A.2 PROCESSING GUIDELINES

Transport, handling and storage

During transport, storage, and in the building phase the construction elements should be adequately shielded from the weather in order to maintain the original quality.