CLASSIFICATION REPORT OF FIRE RESISTANCE

IN ACCORDANCE WITH ÖNORM EN 13501-2:2016

28th of March 2022
TRP/FÜI

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Subject:	Non-load-bearing solid timber wall without planking
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1. Introduction

This classification report of fire resistance defines the classification of a non-load-bearing solid timber wall component of the company KLH Massivholz GmbH in compliance with the process according to the standard ÖNORM EN 13501-2:2016.

2. Details on the classified product

2.1. General

The component belongs to the product type of non-load-bearing, space-enclosing, insulating solid timber construction as detailed in table 1.

2.2. Description

Table 1: component to be classified

short name	exposed side to fire „o“	cross-laminated timber element dimension (lamellae) [mm]	non-exposed side to fire „i“
KLH® - CLT: Wall EI 60 (100 5s DQ)	without planking	100 (20 20 20 20 20)	without planking

3. Test reports and test results supporting this classification

3.1. Description of tested element

Table 2: tested solid timber wall

reference number of the report	exposed side to fire „b“	cross-laminated timber element dimension (lamellae) [mm]	non-exposed side to fire „a“
MA 39 – VFA 2011-1749.01	without planking	95 (19 19 19 19 19)	without planking

The cross-laminated timber elements were connected together with a stepped rebate joint with a width of 50 mm, screwed from the outside (non-exposed side of fire) with 8 x 80 mm screws and at a distance of 300 mm. A sealing tape was inserted in the stepped rebate joint.
A socket (position: 300 mm from the side edge of the panel and 1100 mm from the lower edge of the panel) with empty ducting was installed on the exposed side to fire. The empty piping had a diameter of 20 mm and was in the second lamella (19 mm wood cover). The hole was drilled from the side edge, horizontally over a length of 300 mm to the socket.

3.2. Test report and results

Table 3: test report and results

name of the test laboratory	name of the customer	reference number of the report	testing standard and issue date	type of product/ test specimen	parameter	results
MA 39[1)]	Holzforschung Austria	MA 39 – VFA 2011-1749.01 on 28.11.2011	ÖNORM EN 1364-1: 2000-04 ÖNORM EN 1363-1: 2000-01	Test report on the fire resistance of a multi-layer wall element made of cross-laminated timber with the designation "KLH 5s 95 DL" (test from 09/08/2011)	integrity thermal insulation	76 min 76 min

[1)] MA 39 – Magistrat der Stadt Wien, Magistratsabteilung 39, Prüf-, Überwachungs- und Zertifizierungsstelle der Stadt Wien

The test specified in section 3.2 was carried out in accordance with ÖNORM EN 1364-1 and ÖNORM EN 1363-1 respectively and thus were partly carried out in accordance with older standards (see information in table 3). The current standards ÖNORM EN 1364-1:2015-10 and ÖNORM EN 1363-1:2020-04 show significant changes in terms, new definitions and specifications compared to the older versions. According to information from the test laboratory, those changes have no effect on the results in the test report and can therefore continue to be used to classify the fire resistance.

4. Classification and field of application

4.1. Classification reference

This classification has been carried out in compliance with ÖNORM EN 13501-2:2016-11, Section 7.3.2.

4.2. Classification

The solid timber construction is classified according to the following combinations of performance parameters and classes.

Tested wall height: ≤ 3 m

Table 4:classification of the component

short name	R	E	I	M	exposed side to fire	load [kN/m]	test report
KLH® - CLT: Wall EI 60 (100 5s DQ)	-	60	60	-	o → i	-	MA 39 – VFA 2011-1749.01
	classification of fire resistance with a one-sided exposure to fire: EI 60						

4.3. Direct field of application

This classification is valid for the following practical applications:

The classification results can be applied directly to similar wall structures on which one or several of the changes described below are carried out and whose construction still meets the requirements of the respective design standard with regard to its stiffness and strength:

- Reducing the height of the wall
- Increasing the width of the wall
- Increasing the thickness of the wall
- Reducing the length of boards but not the thickness
- Reducing the distance between fastenings
- Additional facades and cladding on the non-exposed side

5. Restrictions

5.1. General

If one of the basic test and evaluation criteria changes or if the customer makes inadmissible technical changes to the product the validity of this classification report will expire.

5.2. Warning notice

The classification document does not constitute a type approval or certification of the product.

HOLZFORSCHUNG AUSTRIA

DI (FH) Philipp Trimmel
Authorised signatory and technical consultant

DI Sylvia Polleres
Head of Unit

This document was approved electronically in accordance with an internal HFA process by the designated authorized signatory, traceable and documented

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Accreditation mark	Type of accreditation	Process
Akkreditierung Austria A 0055 ISO/IEC 17025 T	Inspection	• ÖNORM EN 13501-2

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