

CLASSIFICATION OF FIRE RESISTANCE PERFORMANCE IN ACCORDANCE WITH EN 13501-2: 2003

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Notified Body No: 1234

Product name: External Fire-Rated Timber wall with Spruce shiplap timber coated with Product 42 (HW01 or HW02).

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This report is issued by the TNO company Efectis Nederland BV (previously **TNO** Centre for Fire Research). TNO decided, in response to international developments and requests by customers, to collaborate with two European Egolf partners, both highly experienced in fire safety: the Norwegian **Sintef/NBL** and the French **CTICM**. Thus, through scaling up, a more comprehensive service of high quality and a wider range of facilities can be offered. In order to achieve this, the fire safety related activities of the partners involved have been privatised in this collaboration. With respect to TNO this has led to the privatisation on the 1st of July of the activities of the TNO Centre for Fire Research via the establishment of the company Efectis Nederland BV.

1. Introduction

This classification report defines the classification assigned to an External Fire-Rated timber wall with Spruce shiplap timber coated with Product 42 (HW01 or HW02) in accordance with the procedures given in EN 13501-2:2003.

2. Details of classified product

2.1 General

External Fire-Rated Timber wall with Spruce shiplap timber coated with Product 42 (HW01 or HW02).

2.2 Product description

The wall was constructed of wooden studs, dimensions 75 x 50 mm (w x t). The vertical distance of the studs was approx. 500 mm. At one side of the construction (non-fire side) the frame was covered with a layer of 12.5 mm plasterboard mounted in horizontal position. At the other side of the construction (fire side) the frame was covered with 12 mm chipboards. The chipboard was covered with a glass fibre reinforced aluminium membrane paper with a thickness of 0.1 mm which was hold in place with battens with dimensions 50 x 23 mm. The fire side of the construction was finished with Norwegian Spruce shiplap timber which were coated with two layers of (0.125 l/m²) Product 42 (HW01) Coloured and Clear (HW02). The construction was filled between the plasterboard and the chipboard with Rockwool insulation with a thickness of 40 mm and a density of 35 kg/m³.

The construction is fully described in the test report provided in support of classification listed in Clause 3.1.

3. Test reports & test results in support of classification

3.1 Test report

Name of Laboratory	Name of sponsor	Test report No.	Test method
Efectis Nederland B.V. Centre for Fire Safety	Environmental Seals Ltd.	2006-Efectis-R0832	NEN-EN 1364-1:2000

3.2 Test results

3.2.1 Test report 2006-Efectis-R0832

Test method & Test number	Parameter	Results
NEN-EN 1364-1:2000	Integrity (E)	
	– cotton pad	66
	– gap gauges	66
	– sustained flaming	66
	Insulation (I)	
– average temperature rise 140°C	66	
– maximum temperature rise 180°C	66	
	Radiation (W)	66

Exposure conditions of the fire resistance test:

- Reduced temperature-time curve as in EN 1363-2: 1999.

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with clause 7 of EN 13501-2:2003.

4.2 Classification

An External Fire-Rated Timber wall with Spruce shiplap timber coated with Product 42 (HW01) coloured or (HW02) clear, is classified according to the following combinations of performance parameters and classes as appropriate.

Fire resistance classification:

EI 60
EW60

4.3 Field of application

This classification is valid for an external fire-rated timber wall which is the same in detail as the tested structure and which comply with the following conditions:

- the Spruce shiplap timber at the external side of the construction is coated with two layers (0.125 l/m²) of product 42 (HW01) coloured or (HW02) clear ;
- filled with Rockwool insulation with a thickness 40 mm and a density of 35 kg/m³;
- the maximum allowed height of the wall construction is 4.00 m between the supporting beams;
- The width of the construction is not limited.

5. Limitations

This classification document does not represent type approval or certification of the product.

SIGNED



A.J. Lock

APPROVED



Dr. Ir. G. van den Berg

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