



warringtonfiregent  
global safety

MEMBER OF **Bodycote** TESTING GROUP

# FIRE RESISTANCE CLASSIFICATION REPORT No. 13238B

## Owner of the classification report:

AGC Flat Glass Europe S.A.  
166, Chaussée de la Hulpe  
B-1170 BRUSSELS

## Introduction:

This classification report defines the classification assigned to a glazed non-loadbearing wall - PYROBELITE 7 EG in a wooden frame - in accordance with the procedures given in EN 13501-2:2007: Fire classification of products and building elements – Part 2: Classification using data from fire resistance tests, excluding ventilation services.

This classification report consists of five pages and six annexes and may only be used or reproduced in its entirety.



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196-TES1

## 1 Details of classified product

### 1.1 General

The element is defined as a glazed non-loadbearing wall - PYROBELITE 7 EG in a wooden frame. It is evaluated in respect of the fire performance characteristics given in clause 5 of EN 13501-2:2007.

### 1.2 Product description

The element is fully described in the test report provided in support of this classification listed in Clause 2.1. The drawings and legend of this test report are enclosed in annexe 1 till 6.

#### Short product description:

The glazed wall consists of a wooden framework composed of vertical posts, horizontal slats, PYROBELITE 7 EG glass panes and wooden glazing beads. The screwed wooden glazing beads are all on the exposed side.

## 2 Test report and test result in support of this classification

### 2.1 Test report

Name of laboratory that undertook the test	Identification number of test report	Owner of test report	Date of test	Test method
WFRGENT N.V.	13238A	AGC Flat Glass Europe S.A.	25/04/2008	EN 1363-1: 1999 EN 1364-1: 1999

Exposure conditions during fire resistance test:

Temperature/time curve: standard as in EN 1363-1: 1999.

Direction of exposure: the window framework is a symmetrical construction.

The glazing beads are screwed on the exposed side. The glass panes are asymmetrical. The Pyrobelite 7 glass layer is orientated to the unexposed side and the polyvinylbutyral-layer is orientated to the exposed side.

One side exposed to the fire.

No load is applied.

One vertical edge is free, the other edges are fixed.

## 2.2 Test results

Parameter	Results
<b>Loadbearing capacity</b>	Not applicable
<b>Integrity</b>	
Time of ignition of cotton pad	No failure at test termination
Time of occurrence of sustained flaming	38 minutes
Time of failure of gap gauge criterion	No failure at test termination
<b>Thermal insulation</b>	
Time after which the mean temperature rise at the unexposed side exceeds 140 °C	10 minutes
Time after which the maximum temperature rise at the unexposed side exceeds 180 °C	11 minutes
<b>Radiation</b>	
Time after which the radiation exceeds 15 kW/m <sup>2</sup>	No failure at test termination
<b>Mechanical action</b>	
No impact test	Not applicable

The test duration was 39 minutes.

### 3 Classification and field of application

#### 3.1 Reference of classification

This classification has been carried out in accordance with clause 7.5.2 of EN 13501-2: 2007.

#### 3.2 Classification

The element is classified according to the following combinations of performance parameters and classes as appropriate. No other classifications are permitted. The classification is only valid for the direction as described in clause 2.1, the screwed glazing beads are orientated to the exposed side, the polyvinylbutyral-layer is orientated to the exposed side and the PYROBELITE 7 glass layer is orientated to the unexposed side.

**EW 30, EW 20**  
**E 30, E 20**

#### 3.3 Field of direct application

This classification is valid for the following end use applications according to EN 13501-2:2007 and EN 1364-1:1999.

The results of the fire test are directly applicable to similar constructions where one or more of the changes listed below are made and the construction continues to comply with the appropriate design code for its stiffness and stability. Other changes are not permitted.

- unlimited increase or decrease in the wall width of 3 m.
- unlimited decrease in the wall height of 3 m. No extension in height is allowed above 3 m.
- decrease in linear dimensions of the panes.
- change in the aspect ratio of the panes provided that the largest dimension of the pane and its area are not increased.
- decrease in the distance between mullions and/or transoms.

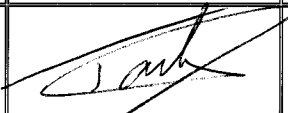
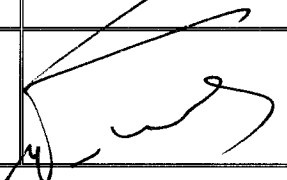
- decrease in distances between fixing centres.
- increase in the dimensions of framing members.
- allowances for expansion if none were incorporated in the test specimen.
- change in the angle of installation of up to 10° from the vertical.

#### 4 Duration of the validity of the classification report

At the time the standard EN 13501-2:2007 was published, no decision was made concerning the duration of validity of the classification document.

#### 5 Warning

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

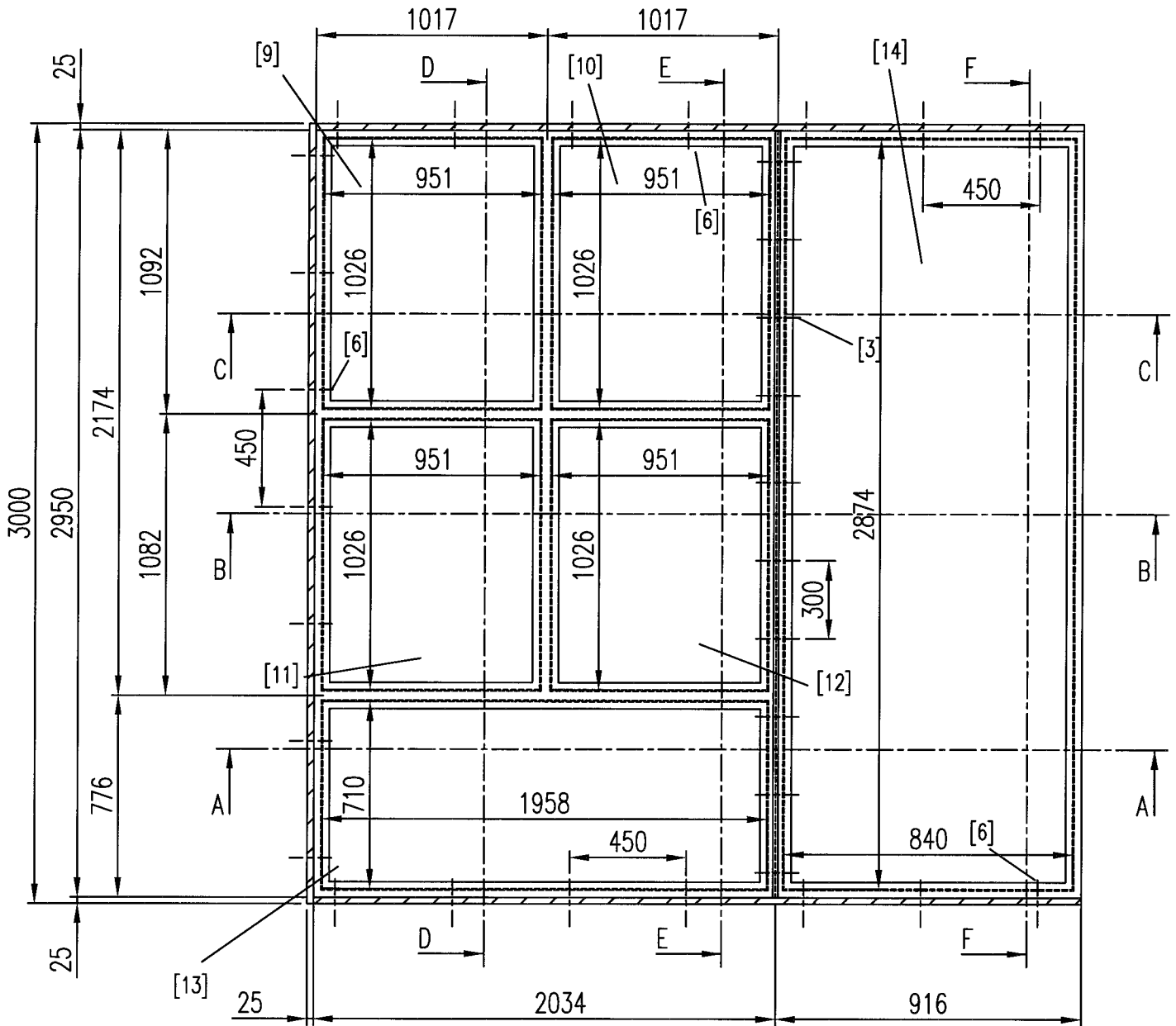
Report	Name	Signature*	Date
Prepared by	P. TACK		22 DEC 2008
Reviewed by	Prof. dr. ir. P. VANDEVELDE		22 DEC 2008
* For and on behalf of WFRGENT N.V.			

EN 13501-2 FSG REC 017 -version 1

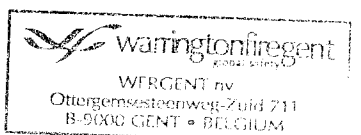
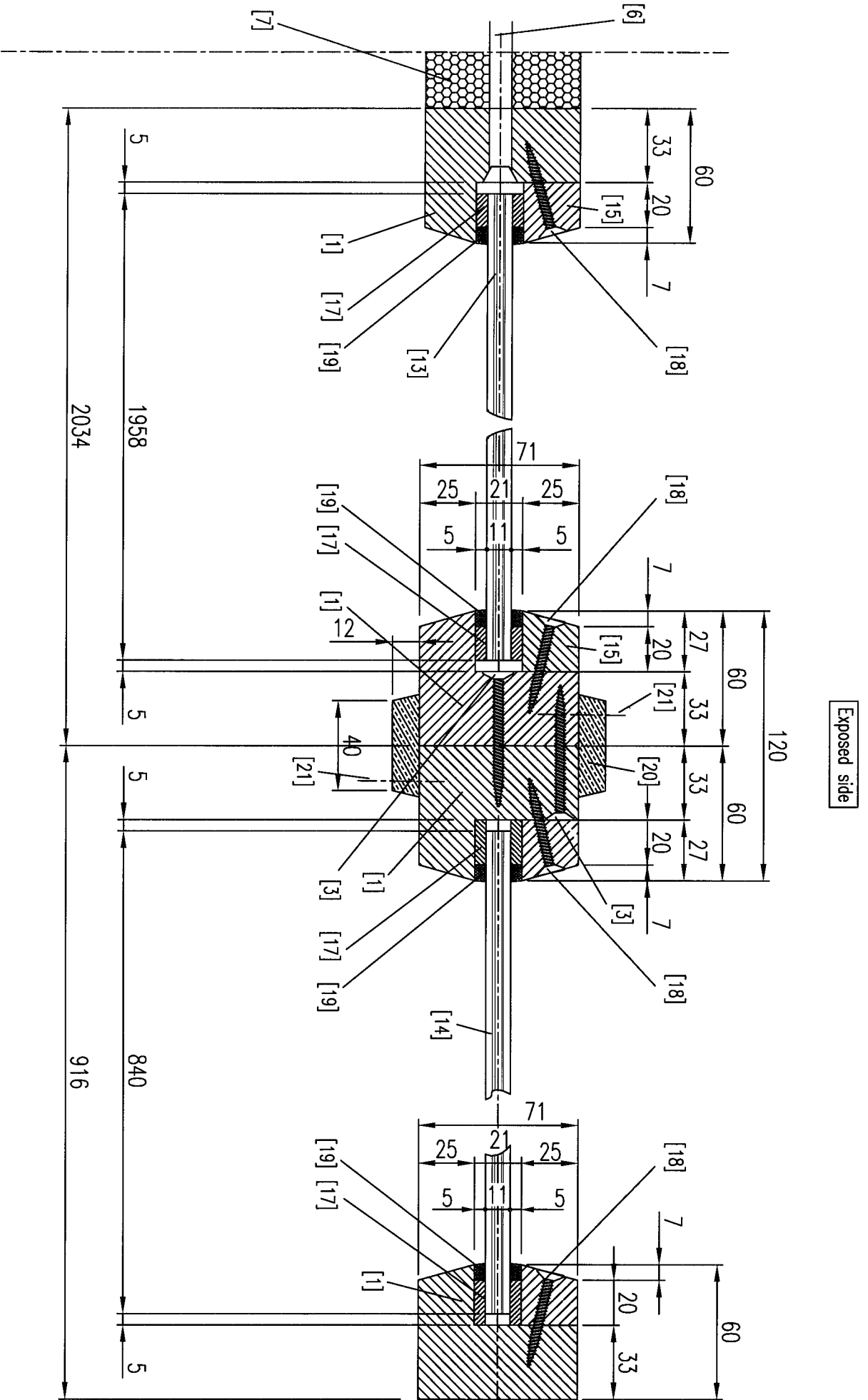
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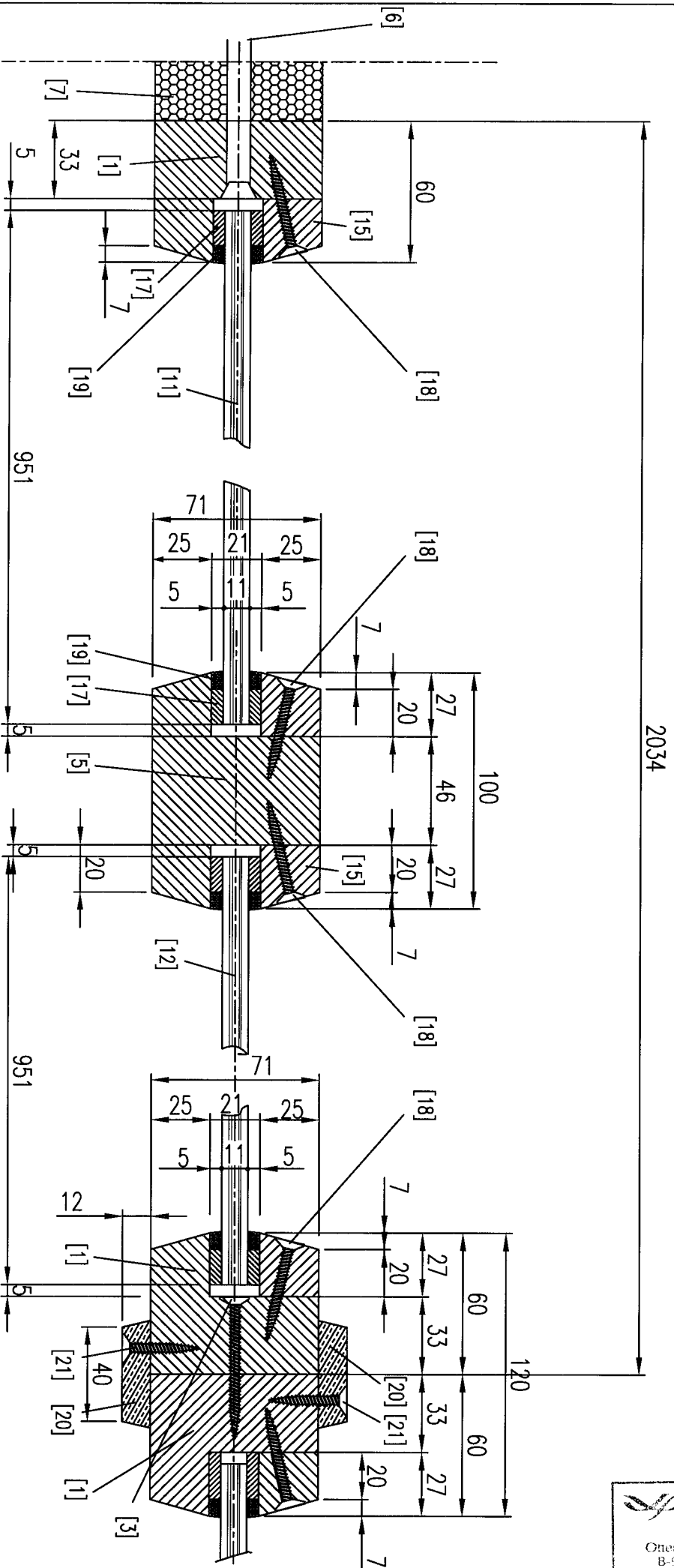
Front view: unexposed side



SECTION A-A

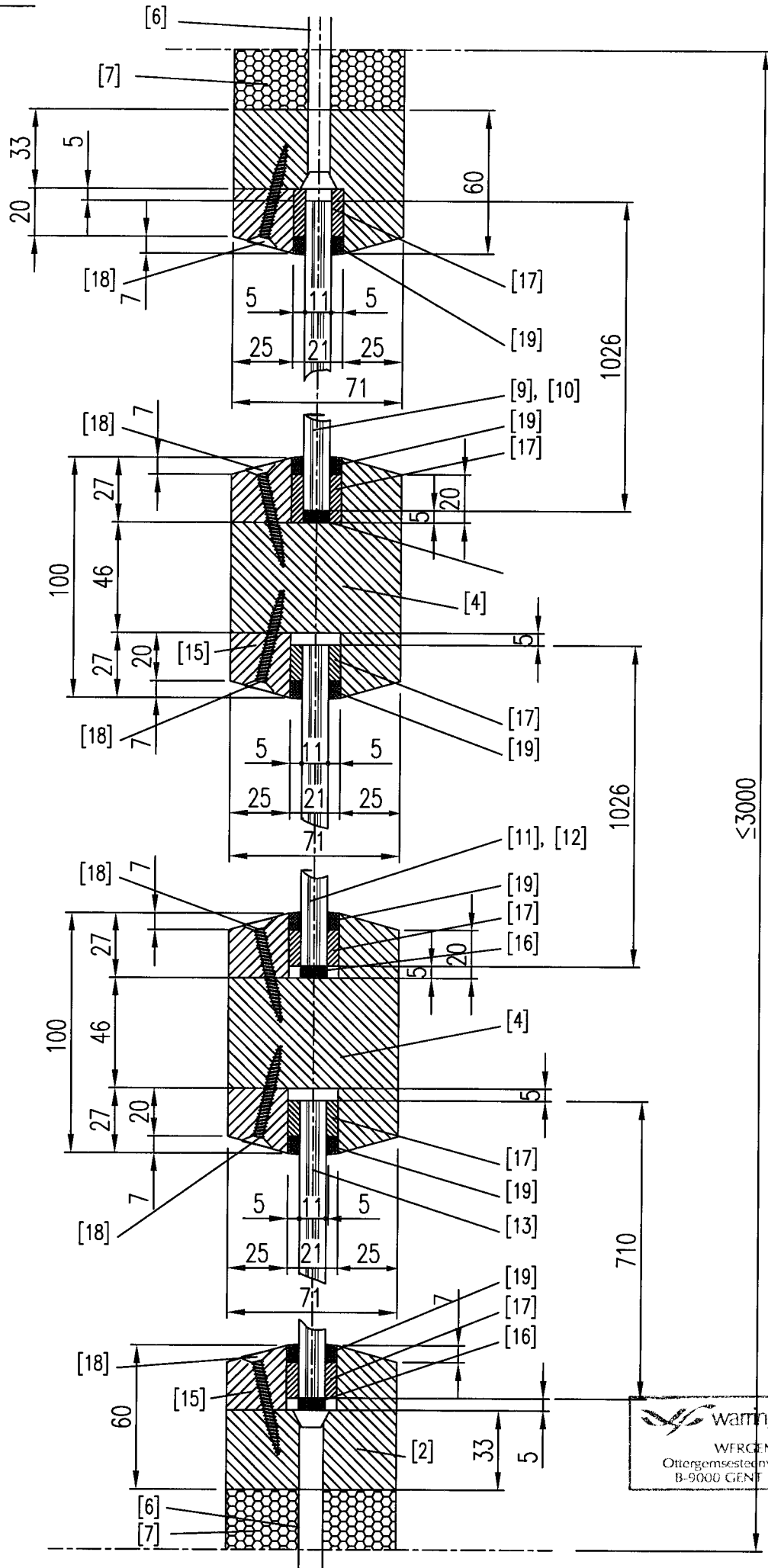


Exposed side

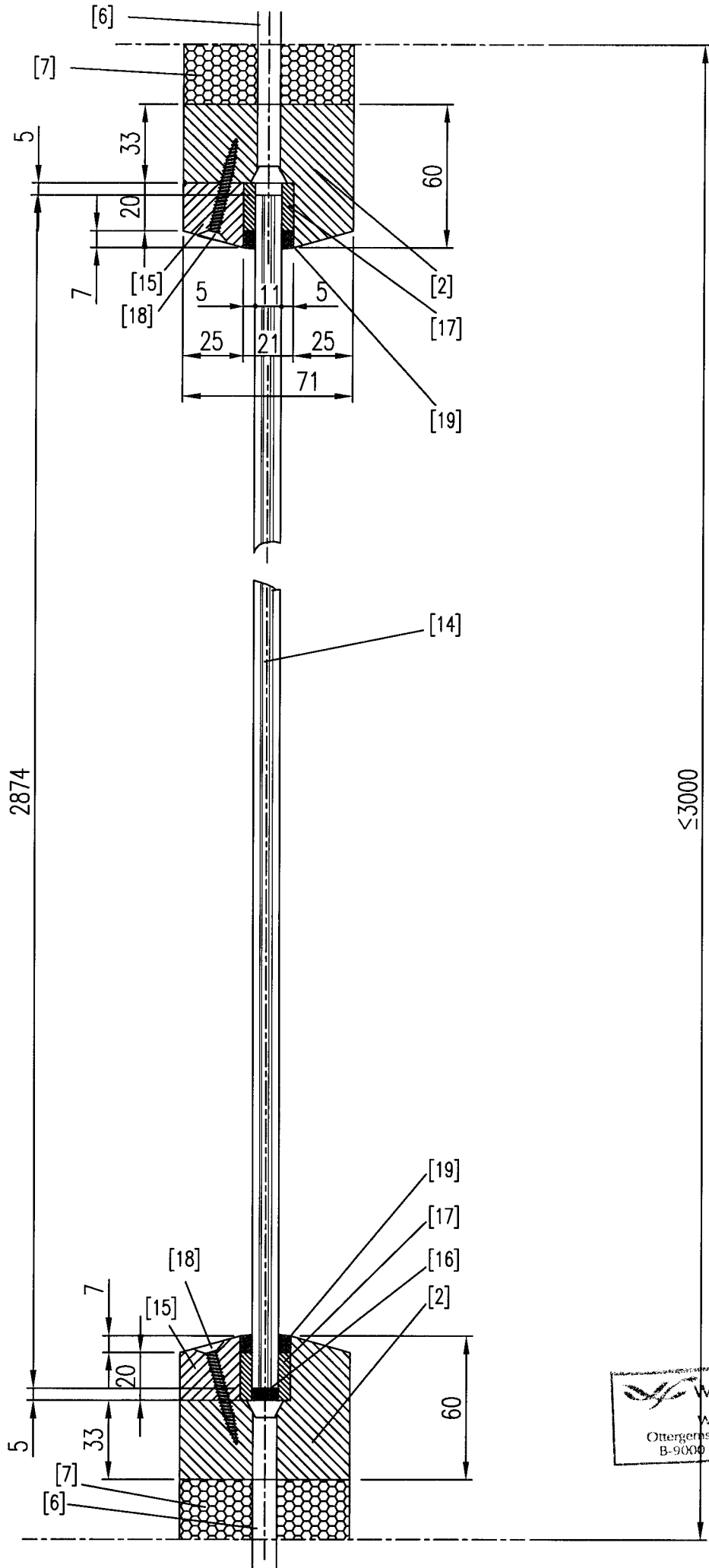





Exposed side



Exposed side



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LEGEND

- [1] Vertical post – Meranti – outside dimensions of the section: 60 mm x 71 mm – density: 471 kg/m<sup>3</sup> (MV).
- [2] Horizontal slat – Meranti – outside dimensions of the section: 60 mm x 71 mm – density: 471 kg/m<sup>3</sup> (MV).
- [3] Screw – steel – diameter: 5 mm – length: 60 mm.
- [4] Horizontal slat – Meranti – outside dimensions of the section: 100 mm x 71 mm – density: 471 kg/m<sup>3</sup> (MV).
- [5] Vertical post – Meranti – outside dimensions of the section: 100 mm x 71 mm – density: 471 kg/m<sup>3</sup> (MV).
- [6] Concrete plugs – steel – type : Hilti 100 HT – diameter : 10 mm – length : 112 mm.
- [7] Ceramic wool – type: thermal insulation Insulfrax – compressed to a thickness of approximately 25 mm – density: 96 kg/m<sup>3</sup>.
- [8] Mineral wool.
- [9] Glass – type: Pyrobelite 7 EG – dimensions: 951 mm x 1026 mm – thickness: 11 mm – reference: BX09523-03-503.
- [10] Glass – type: Pyrobelite 7 EG – dimensions: 951 mm x 1026 mm – thickness: 11 mm – reference: BX09523-03-501.
- [11] Glass – type: Pyrobelite 7 EG – dimensions: 951 mm x 1026 mm – thickness: 11 mm – reference: BX09523-03-504.
- [12] Glass – type: Pyrobelite 7 EG – dimensions: 951 mm x 1026 mm – thickness: 11 mm – reference: BX09523-03-502.
- [13] Glass – type: Pyrobelite 7 EG – dimensions: 1958 mm x 710 mm – thickness: 11 mm – reference: BX09523-02-501.

- [14] Glass – type: Pyrobelite 7 EG – dimensions: 840 mm x 2874 mm – thickness: 11 mm – reference: BX09523-01-501.
- [15] Glazing bead – Meranti – outside dimensions of the section: 27 mm x 25 mm – density: 471 kg/m<sup>3</sup> (M V).
- [16] Adjusting blocks – type: Promatect H – dimensions: 70 mm x 11 mm x 5 mm – density: 960 kg/m<sup>3</sup> (MV).
- [17] Ceramic paper – type: Superwool X607 – section: 20 mm x 5 mm.
- [18] Screw – steel – diameter: 4 mm – length: 50 mm.
- [19] Silicone – Brand: Dow Corning – type: Firestop 700.
- [20] Wooden lath – Meranti – outside dimensions of the section: 40 mm x 12 mm – density: 471 kg/m<sup>3</sup> (MV).
- [21] Screw – steel – diameter: 3,5 mm – length: 35 mm.