



warringtonfiregent  
global safety

MEMBER OF **Bodycote** TESTING GROUP

## **FIRE RESISTANCE CLASSIFICATION REPORT No. 12529B**

### **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 glazed non-loadbearing wall - Pyrobelite 12 in a Jansen Economy 50 frame - in accordance with the procedures given in EN 13501-2: 2003: 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 four annexes and may only be used or reproduced in its entirety.



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## 1 Details of classified product

### 1.1 General

The element is defined as a glazed non-loadbearing wall - Pyrobelite 12 in a Jansen Economy 50 frame. It is evaluated in respect of the fire performance characteristics given in clause 5 of EN 13501-2: 2003.

### 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 4.

#### Short product description:

The glazed wall consists of a window framework - Jansen Economy 50 - composed of vertical and horizontal steel sections welded to each other and twelve Pyrobelite 12 glass elements. The glazing 'clip-on' beads are all on the exposed side.

## 2 Test report and test results 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.	12529A	GLAVERBEL S.A./N.V.	25/02/2007	EN 1363-1: 1999 EN 1364-1: 1999

Exposure conditions during the fire resistance test:

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

Direction of exposure: the window framework is an asymmetrical construction. The glazing beads are clipped on the exposed side.

One side exposed to the fire.

No load 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	No failure at test termination
Time of failure of gap gauge criterion	65 minutes
<b>Thermal insulation</b>	
Time after which the mean temperature rise at the unexposed side exceeds 140 °C	31 minutes
Time after which the maximum temperature rise at the unexposed side exceeds 180 °C	10 minutes
<b>Radiation</b>	
Time after which the radiation exceeds 15 kW/m <sup>2</sup>	65 minutes
<b>Mechanical action</b>	
No impact test	Not applicable

The test duration was 66 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: 2003.

#### 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.

**EW 60, EW 30, EW 20**  
**E 60, 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: 2003 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.



- screwed-on glazing beads, if 'clip-on' beads were incorporated in the test specimen.
- 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: 2003 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.

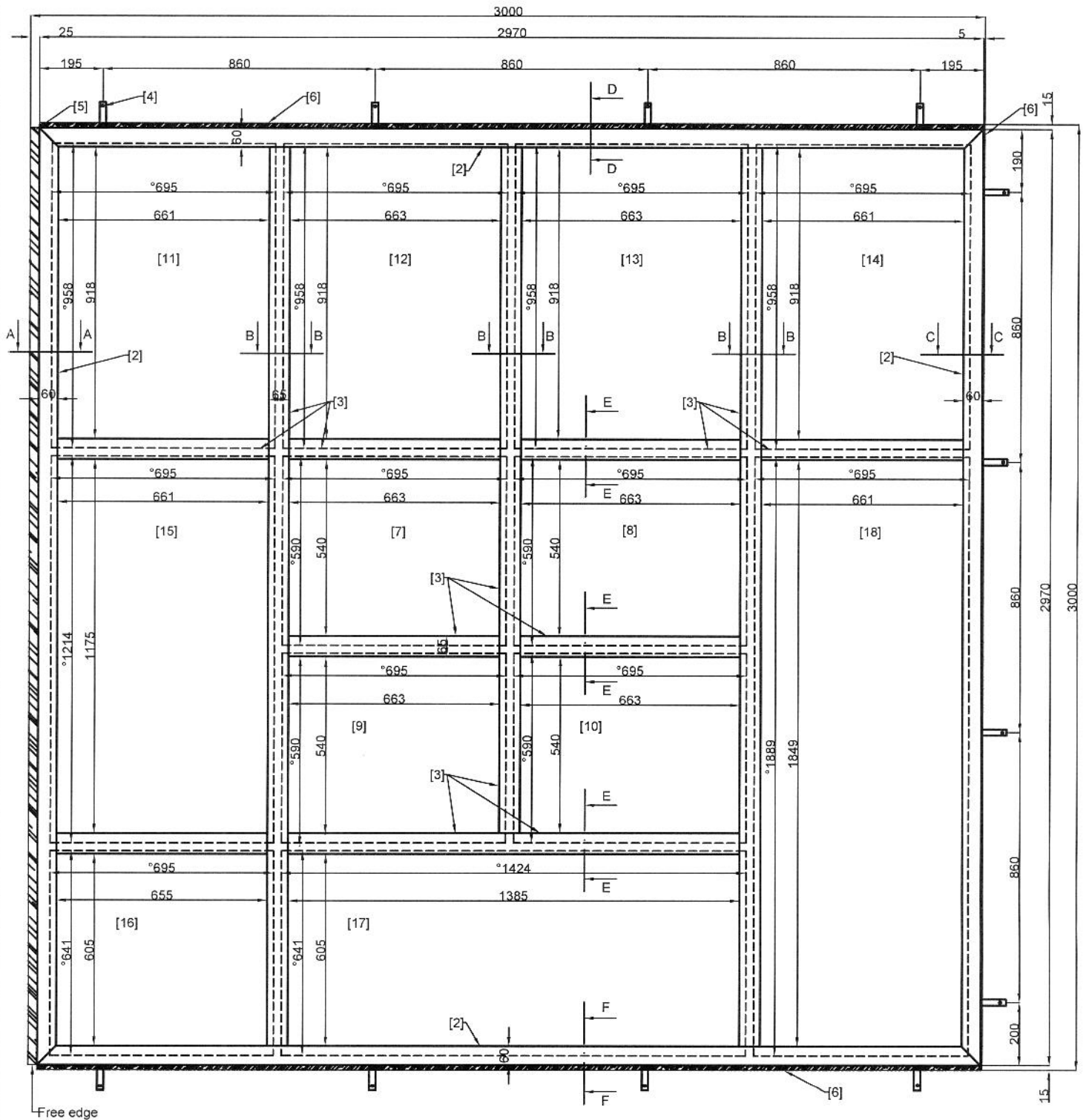
Report	Name	Signature*	Date
Prepared by	P. TACK		04 JAN 2008
Reviewed by	Prof. dr. ir. P. VANDEVELDE		04 JAN 2008
* For and on behalf of WFRGENT N.V.			

EN 13501-2 FSG REC 017 -version 1

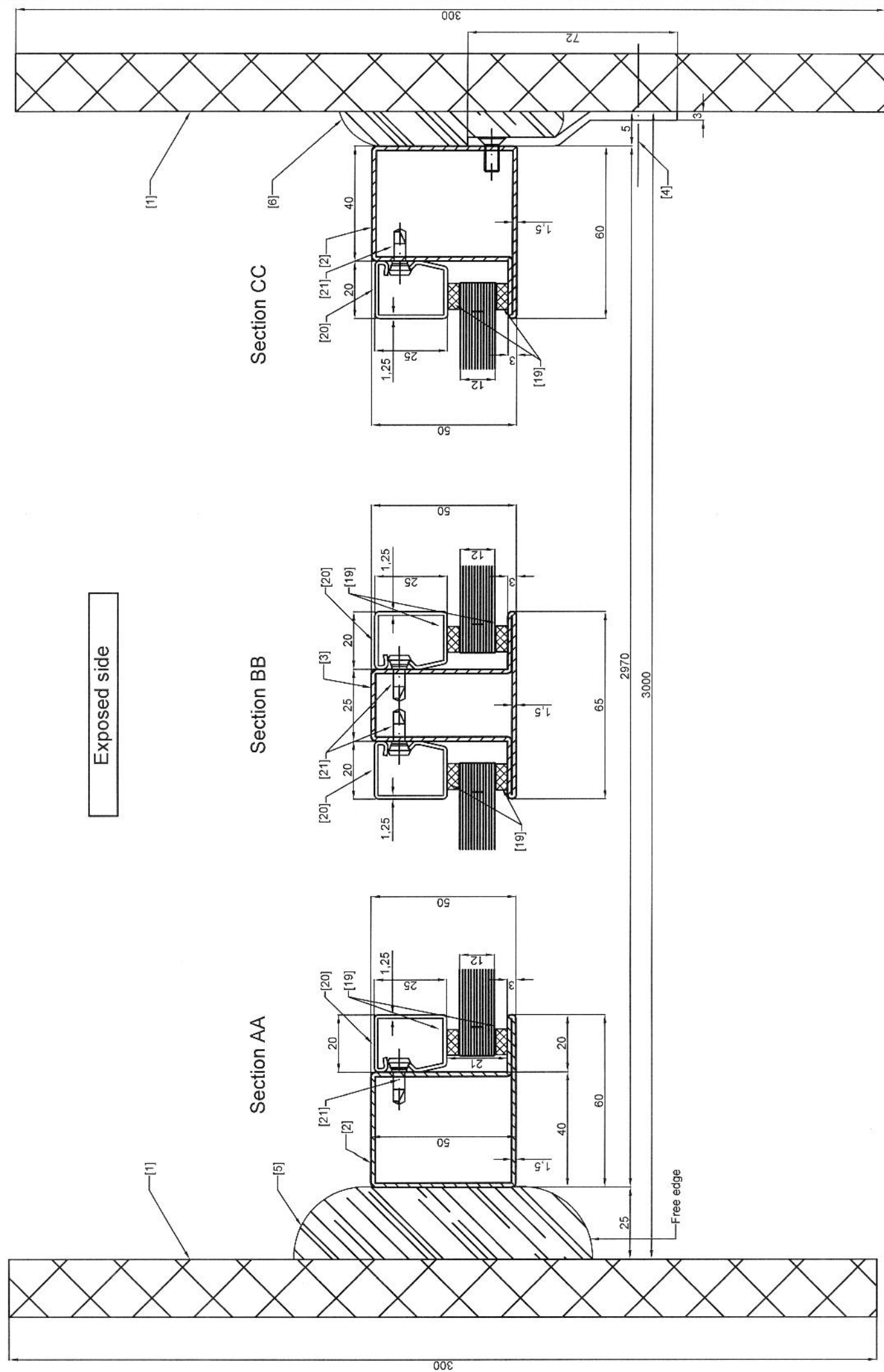
This document is the original version of this classification report and is written in English.

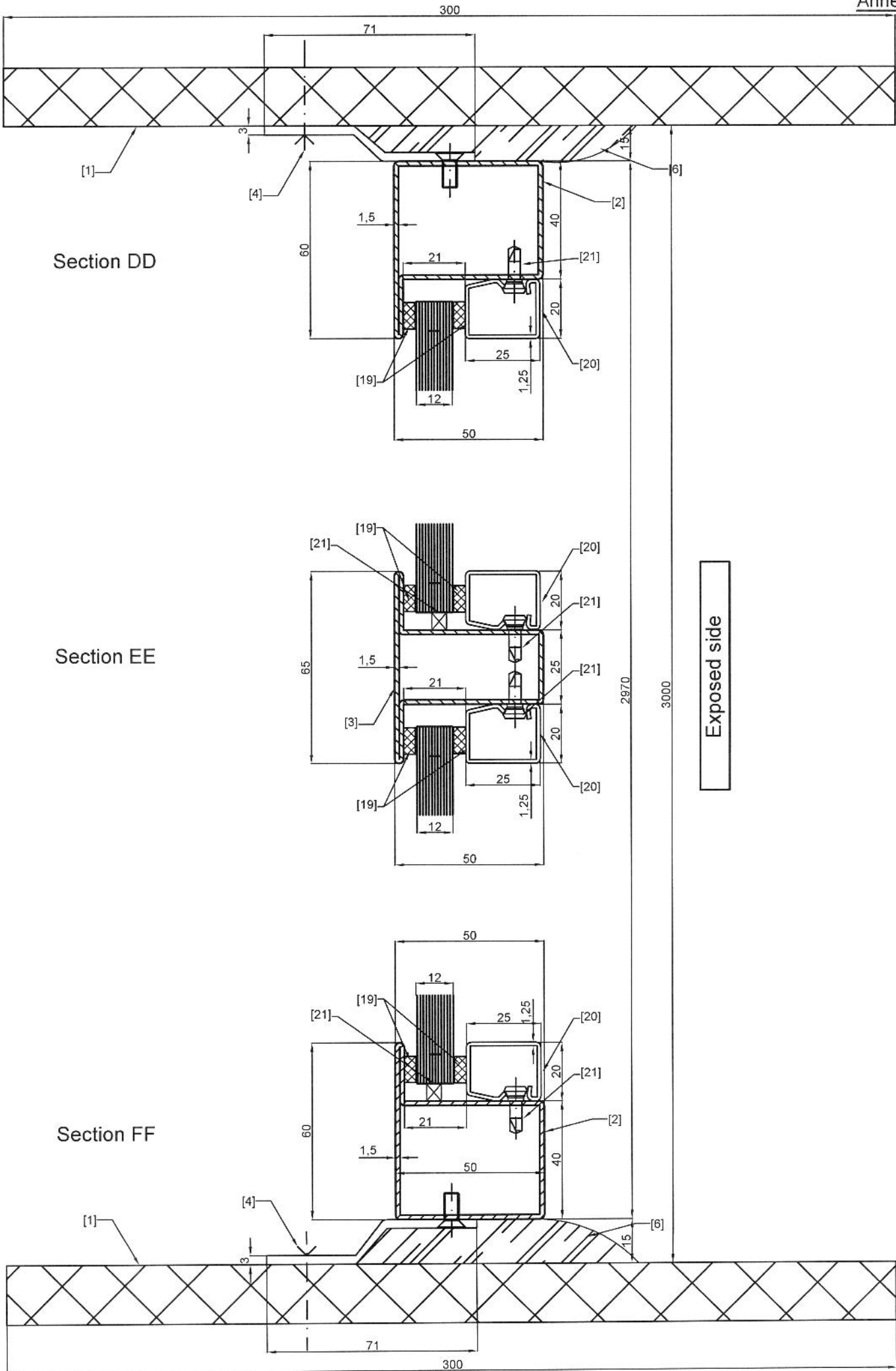
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Unexposed side



° = Glass dimensions





Section DD

Section EE

Section FF

Exposed side



LEGEND

- [1] Concrete frame – inner dimensions: 3000 mm x 3000 mm.
- [2] Section – steel – trade and type: Jansen Economy 50 – outer dimensions of the section: 60 mm x 50 mm – thickness : 1,5 mm.
- [3] Section – steel – trade and type: Jansen Economy 50 – outer dimensions of the section: 65 mm x 50 mm – thickness: 1,5 mm.
- [4] Anchor bolt – steel – trade name: DRILFIX – length: 75 mm – diameter: 10 mm.
- [5] Mineral wool – volumetric weight: 96 kg/m<sup>3</sup> (NV).
- [6] Mineral wool – trade name and type: Thermal Ceramics Superwool<sup>®</sup> SW 607 HT – uncompressed thickness: 13 mm or 19 mm - volumetric weight: 128 kg/m<sup>3</sup> (NV).
- [7] Glass – trade name and type: Glaverbel<sup>®</sup> PYROBELITE 12<sup>®</sup> – outer dimensions: 695 mm x 590 mm – thickness: 12 mm – weight: 11,07 kg – reference: CM10918-02-507.
- [8] Glass – trade name and type: Glaverbel<sup>®</sup> PYROBELITE 12<sup>®</sup> – outer dimensions: 695 mm x 590 mm – thickness: 12 mm – weight: 11,07 kg – reference: CM10918-02-505.
- [9] Glass – trade name and type: Glaverbel<sup>®</sup> PYROBELITE 12<sup>®</sup> – outer dimensions: 695 mm x 590 mm – thickness: 12 mm – weight: 11,07 kg – reference: CM10918-02-508.
- [10] Glass – trade name and type: Glaverbel<sup>®</sup> PYROBELITE 12<sup>®</sup> – outer dimensions: 695 mm x 590 mm – thickness: 12 mm – weight: 11,07 kg – reference: CM10918-02-506.
- [11] Glass – trade name and type: Glaverbel<sup>®</sup> PYROBELITE 12<sup>®</sup> – outer dimensions: 958 mm x 695 mm – thickness: 12 mm – weight: 18,09 kg – reference: CM10918-01-506.

- [12] Glass – trade name and type: Glaverbel® PYROBELITE 12® – outer dimensions: 958 mm x 695 mm – thickness: 12 mm – weight: 18,09 kg – reference: CM10918-01-508.
- [13] Glass – trade name and type: Glaverbel® PYROBELITE 12® – outer dimensions: 958 mm x 695 mm – thickness: 12 mm – weight: 18,09 kg – reference: CM10918-01-509.
- [14] Glass – trade name and type: Glaverbel® PYROBELITE 12® – outer dimensions: 958 mm x 695 mm – thickness: 12 mm – weight: 18,09 kg – reference: CM10918-01-507.
- [15] Glass – trade name and type: Glaverbel® PYROBELITE 12® – outer dimensions: 1214 mm x 695 mm – thickness: 12 mm – weight: 22,68 kg – reference: CM10918-03-503.
- [16] Glass – trade name and type: Glaverbel® PYROBELITE 12® – outer dimensions: 695 mm x 641 mm – thickness: 12 mm – weight: 12,15 kg – reference: CM10918-04-502.
- [17] Glass – trade name and type: Glaverbel® PYROBELITE 12® – outer dimensions: 1424 mm x 641 mm – thickness: 12 mm – weight: 24,75 kg – reference: CM10918-05-502.
- [18] Glass – trade name and type: Glaverbel® PYROBELITE 12® – outer dimensions: 1889 mm x 695 mm – thickness: 12 mm – weight: 35,37 kg – reference: CM10918-06-502.
- [19] Ceramic tape – trade name and type: ODICE Superwool® X607 – section dimension: 20 mm x 3 mm.
- [20] Glazing bead – steel – section dimensions: 25 mm x 20 mm – thickness: 1,25 mm.
- [21] Block – glass fibre – trade name and type: Promatect H – dimensions: 70 mm x 17 mm – thickness: 6 mm.
- [22] Screw – steel – length: 15,2 mm – diameter: 4,7 mm.