

FIRE RESISTANCE CLASSIFICATION REPORT No. 13931B

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 - PYROBEL 17N in a JANSEN ECO 60 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 four annexes and may only be used or reproduced in its entirety.



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BTW/VAT/TVA BE0870.418.414 - Ondernemingsnummer: RPR 0870.418.414 GENT



Name of laboratory that undertook the test	Identification number of test report	Owner of test report	Date of test	Test method
WFRGENT N.V.	13931A	AGC Flat Glass Europe S.A.	15/07/2009	EN 1364-1: 1999

2.1 Test report

2 Test report and test results in support of this classification

The glazed wall consists of a steel JANSSEN ECO 60 framework composed of vertical steel posts, horizontal steel profiles and PYROBEL 17 glass panes. All the steel clip-on beads are attached with screws on the exposed side. The glass panes are symmetrical.

Short 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.

1.2 Product description

The element is defined as a glazed non-loadbearing wall - PYROBEL 17N in a JANSSEN ECO 60 frame. It is evaluated in respect of the fire performance characteristics given in clause 5 of EN 13501-2:2007.

1.1 General

1 Details of classified product

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 clip-on beads are attached at the exposed side. The glass panes are symmetrical.
 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
Loadbearing capacity	Not applicable
Integrity	No failure at test termination
Time of occurrence of sustained flaming	70 minutes
Time of failure of gap gauge criterion	70 minutes
Thermal insulation	
Time after which the mean temperature rise at the unexposed side exceeds 140 °C (on the glass).	48 minutes
Time after which the maximum temperature rise at the unexposed side exceeds 180 °C (on the uninsulated steel frame)	10 minutes
Radiation	
Time after which the radiation exceeds 15 kW/m ²	No failure at test termination
Mechanical action	
No impact test	Not applicable

The test duration was 70 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.

**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 13501-2:2007 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 vertical posts and horizontal profiles.
- 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.

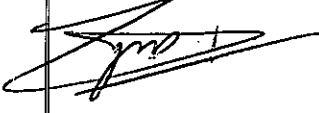
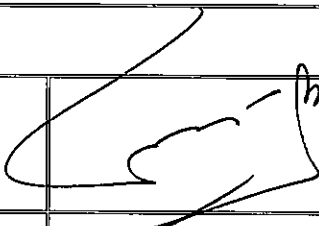
4 Duration of the validity of the classification report

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

The classification assigned to the product in this report is appropriate to a declaration of conformity by the certification body within the context of a system 1 attestation of conformity and CE marking under the Construction Products Directive, as the sampling was performed by a notified body.

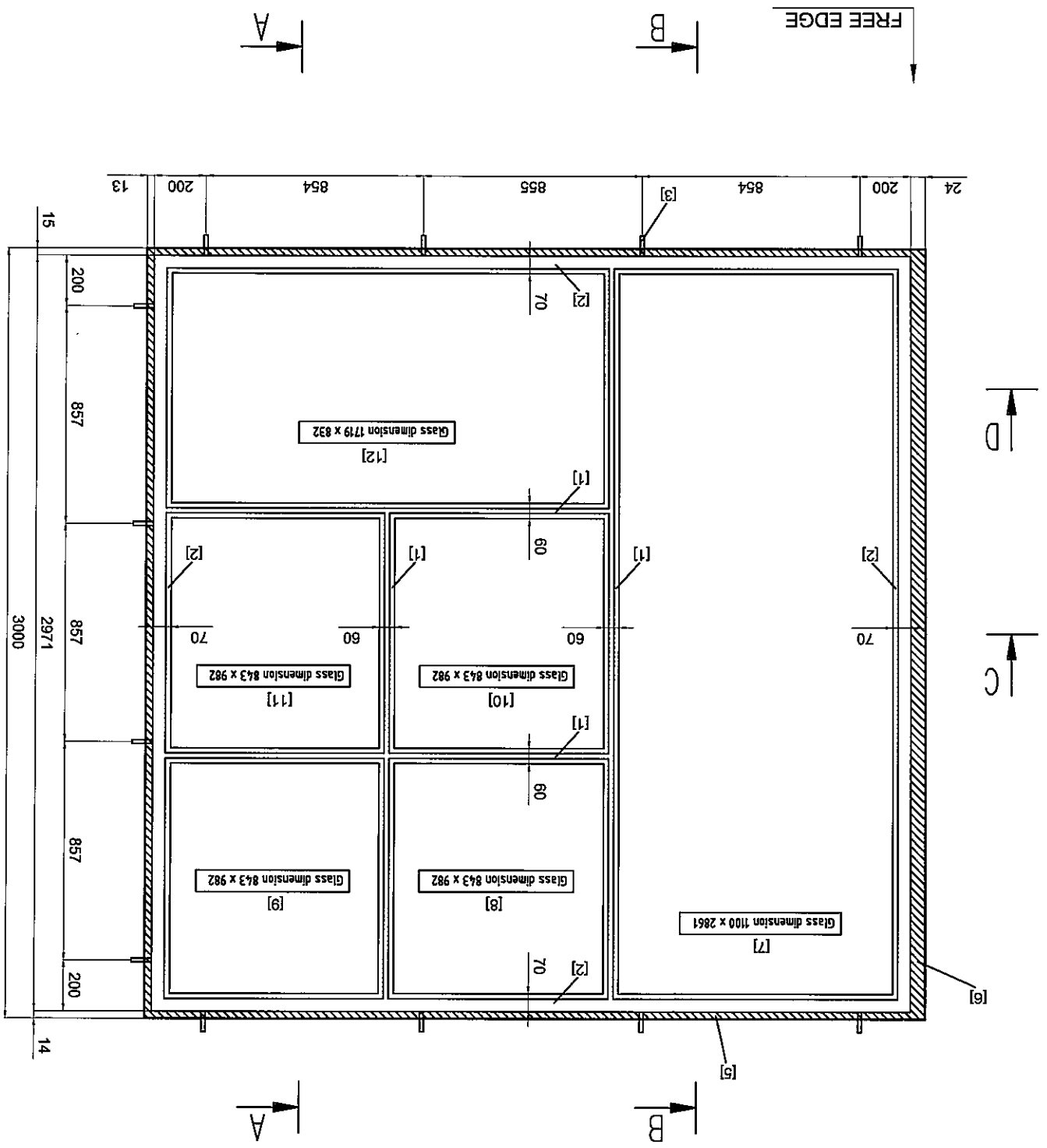
This classification document does not represent type approval or certification of the product.

Report	Name	Signature*	Date
Prepared by	P. TACK		20 NOV 2009
Reviewed by	Prof. dr. ir. P. VANDEVELDE		20 NOV 2009
* 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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- [1] Profile – steel – brand and type: Jansen Eco 60 – outside dimensions of the section: 60 mm x 60 mm – thickness: 1,30 mm.
- [2] Profile – steel – brand and type: Jansen Eco 60 – outside dimensions of the section: 70 mm x 60 mm – thickness: 1,30 mm.
- [3] Plate – steel – outside dimensions: 138 mm x 35 mm – thickness: 3 mm.
- [4] Concrete plug – steel – type: Hilti 100 HT – diameter : 10 mm – length : 112 mm.
- [5] Mineral wool – brand and type: thermal insulation Superwool X607 – firmly compressed till approximately 15 mm – density: 96 kg/m³ (MV).
- [6] Mineral wool.
- [7] Glass – type: Pyrobel 17 – dimensions: 2861 mm x 1100 mm – thickness: 16 mm (MV) – reference: BX11830-01-501.
- [8], [9], [10] and [11] Glass – type: Pyrobel 17 – dimensions: 982 mm x 843 mm – thickness: 16 mm (MV) – reference: BX11830-03-501, BX11830-03-502, BX11830-03-503, BX11830-03-504.
- [12] Glass – type: Pyrobel 17 – dimensions: 832 mm x 1719 mm – thickness: 16 mm (MV) – reference: BX11830-02-501.
- [13] Clip-on bead – steel – outside dimensions of the section: 20 mm x 30 mm – thickness: 1,30 mm.
- [14] Screw – steel – diameter: 4 mm – length: 16 mm.
- [15] Adjusting block – type: Promatect-H – dimensions: 70 mm x 15 mm x 6 mm – density: 960 kg/m³ (MV).
- [16] Self adhesive ceramic paper – section: 20 mm x 5 mm.
- [17] Adjusting block – type: Promatect-H – density: 960 kg/m³ (MV).

LEGEND