

TEST REPORT N° 2006B SEC 2811

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Mons, November 20th, 2006


REQUESTED BY : GLAVERBEL SA
Chaussée de la Hulpe, 166
1170 Bruxelles
BELGIUM

REFERENCE OF THE REQUEST : Order n° 60050844 from October 26th, 2006

NUMBER OF SAMPLES AND IDENTIFICATION : 26 samples 876*1938 mm

PURPOSE OF THE REQUESTED : Test on safety glass in compliance with the requirements of the standard EN 12600 (Pendular test).

SAMPLES RECEIVED ON : October 31st, 2006

REMARKS : - * Test under BELTEST accreditation
Notified body (Id.N°1174)
 according to ART.18 of the « Construction Products Directive » CPD 89/106/EEC

TEST ON SAFETY GLASS IN COMPLIANCE WITH
THE REQUIREMENTS OF THE STANDARD EN 12600
(Pendular test)

Name of the applicant : GLAVERBEL SA
Chaussée de la Hulpe, 166
1170 Bruxelles
BELGIUM

Commercial name of the product : **PYROBEL 8 EG**

Customer reference : **BX06921-01**

Technical specifications
- Internal reference : CSEC2811
- Number of samples : 26 (876 * 1938 mm)
- Structural composition of the samples : see annex 1

Side to present to the impact :

Integration of an electronic system or alarm component : none

Sampling : by the applicant

Samples compliance with the requirements : come within the requirements

Temperature in the test room : 21°C

Requested class : EN 12600

Drop height : 190, 450 and 1200 mm

Testing date : November 16th, 2006

Conditioning time at that temperature : 16 days

Witness : Mr. Bonnefoy

A. Result on glass opposed to the PVB

On 4 samples

Dimension : 876*1938 mm

Temperature in the test room : 21°C

Testing date : November 16th, 2006

Conditioning time at that temperature : 16 days

Tested side : Impact opposed to the PVB side

Equipment : calibration January 27th, 2006

TEST PIECE NUMBER	REFERENCE TO THE SAMPLE	ACTUAL THICKNESS (mm)	DROP HEIGHT (mm)	INSPECTION OF THE TEST PIECE AFTER IMPACT
1	BX06921-01-505	13.05	190	Intact
2	BX06921-01-504	12.85	190	Intact
3	BX06921-01-503	13.04	190	Intact
4	BX06921-01-502	12.59	190	Intact
1	BX06921-01-505	13.05	450	Intact
2	BX06921-01-504	12.85	450	Intact
3	BX06921-01-503	13.04	450	Intact
4	BX06921-01-502	12.59	450	Intact
1	BX06921-01-505	13.05	1200	Broken in compliance with § 4.a.
2	BX06921-01-504	12.85	1200	Broken in compliance with § 4.a.
3	BX06921-01-503	13.04	1200	Broken in compliance with § 4.a.
4	BX06921-01-502	12.59	1200	Broken in compliance with § 4.a.

REMARK(S)

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CONCLUSION

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The tests carried out on the samples considered in this report gave results in compliance with the requirements of the EN 12600 (pendular test) standard for the safety **Classification 1B1**.

B. Result on glass to the PVB

On 5 samples

Dimension : 876*1938 mm

Temperature in the test room : 21°C

Testing date : November 16th, 2006

Conditioning time at that temperature : 16 days

Tested side : Impact on the PVB side

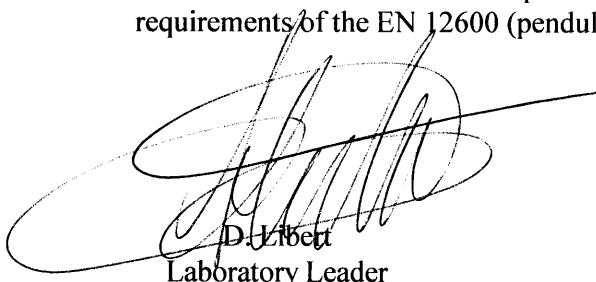
Equipment : calibration January 27th, 2006

TEST PIECE NUMBER	REFERENCE TO THE SAMPLE	ACTUAL THICKNESS (mm)	DROP HEIGHT (mm)	INSPECTION OF THE TEST PIECE AFTER IMPACT
5	BX06921-01-526	12.71	190	Intact
6	BX06921-01-525	13.15	190	Intact
7	BX06921-01-524	12.65	190	Intact
8	BX06921-01-522	12.66	190	Intact
5	BX06921-01-526	12.71	450	Intact
6	BX06921-01-525	13.15	450	Intact
7	BX06921-01-524	12.65	450	Broken in compliance with § 4.a.
8	BX06921-01-522	12.66	450	Intact
5	BX06921-01-526	12.71	1200	Broken in compliance with § 4.a.
6	BX06921-01-525	13.15	1200	Broken in compliance with § 4.a.
8	BX06921-01-522	12.66	1200	Broken in compliance with § 4.a.
9	BX06921-01-521	12.79	1200	Broken in compliance with § 4.a.

REMARK(S)

CONCLUSION

The tests carried out on the samples considered in this report gave results in compliance with the requirements of the EN 12600 (pendular test) standard for the safety **Classification 1B1**.



D. Libert
Laboratory Leader

S. LANGE
Leader Glazings and Components

ANNEX 1

COMPOSITION OF THE TESTED SAMPLESCSEC2811

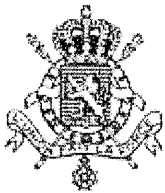
COMPONENTS	TYPE	NOMINAL THICKNESS	TREATMENT
First component	Float glass	3.00 mm	None
Second component	2 coatings	2 x 1.65 mm	None
Third component	Float glass	3.00 mm	None
Fourth component	PVB	0.76 mm	None
Fifth component	Float glass	3.00 mm	None

OFFICIAL AKNOWLEDGEMENT

AUTHORIZED TESTS



Notified body (Id.N°1174) according to ART.18 of the « Construction Products Directive » CPD 89/106/EEC



Authorized by the Belgian organization for technical approval in building (UBAtc)

- Glazing Appearance and geometry
- Photometric and energetic characteristics
- Coated glass durability
- Insulating glass performances
- Mirrors
- Impact resistance of security glazing
- Dessicants for insulating glass
- Sealants for Insulating glass assembling
- Structural glazing sealants



Authorized by the Belgian public federal service for transportation

- Homologation tests of safety glazing for automotive
(UN R.43 - CEE 92/22 and 89/173)



Authorized by the Automotive Manufacturers Equipment Compliance Agency, Inc (AMECA - Washington - U.S.A.)

- Homologation tests of safety glazing for automotive(ANSI Z26.1)



Authorized by "Eisenbahn – Bundesamt" (EBA – Deutschland)

- Optical properties – Safety glazing for railway vehicles