

TEST REPORT : N° 2014B SEC 22251-1a

Including 4 pages + 1 annex
Page 1/4

Mons, October 14th, 2014

REQUESTED BY :

SOVEP

Rue El Kasserine – ZI Mghira III Lot 97
Tunis
Tunisie

REFERENCE OF THE REQUESTED :

Pro forma invoice PF2/2014

CONCERNED MANUFACTURER:

SOVEP

Rue El Kasserine – ZI Mghira III Lot 97
Tunis
Tunisie

NUMBER OF SAMPLES AND IDENTIFICATION :

Thermally Toughened safety glass –
clear glass - see page 2

PURPOSE OF THE REQUEST :

Test in compliance with the requirements of the EN 12150-2 Standard (fragmentation test*, 4 points bending test EN 1288-3 standard)

SAMPLES RECEIVED ON :

26/06/2014

TESTING DATE :

From 08/07/2014

COMMENTS :

*Test under accreditation

This report cancel and replace report 2014B SEC 22251-1



Notified body (Id.N°1174)

according to Regulation (EU) No 305/2011 - Construction products

DESCRIPTION OF THE SAMPLES

Manufacturer	: SOVEP Rue El Kasserine – ZI Mghira III Lot 97 Tunis Tunisie
Production site	: Tunisie
Commercial name of the product	: /
Customer's references	: Thermally Toughened safety glass – clear glass
Internal reference	: SEC 22251
Sampling	: Under responsibility of the manufacturer
Sampling information	: Traceability of the samples is under responsibility of the manufacturer.
Number of samples	: 18 samples 10 mm (360 x 1100 mm)
Integration of an electronic system or alarm component	: None
Witness	: None

TEST ON SAFETY GLASS IN COMPLIANCE WITH
THE REQUIREMENTS OF THE STANDARD EN 12150-2 (2005)

II FRAGMENTATION TEST

Fragmentation on thermally toughened safety glass according to the specifications of the EN 12150-1 (2000).

On 5 samples
Dimension : 360 x 1100 mm

Nominal thickness : 10.0 mm ± 0.3

Testing date : 08/07/2014
Temperature in the test room: 21°C

Sample n°	Thickness (mm)	Number of particles into a square of 50 x 50 mm (*)	Long particles >100mm	
			Number	Length (mm)
1	9.94	84	0	-
2	9.92	84	0	-
3	9.99	81	0	-
4	9.92	89	0	-
5	9.89	87	0	-

(*) limit of acceptance : 40 minimum

III MECHANICAL RESISTANCE TEST (see annex 1)

Mechanical resistance on thermally toughened safety glass according to the specifications of the EN 12150-1 (2000) bending strength (four points bending method following EN 1288-3)).

Test was performed at CSTC-WTCB

On 10 samples

Dimension : 360 x 1100 mm

Testing date : 30/07/2014

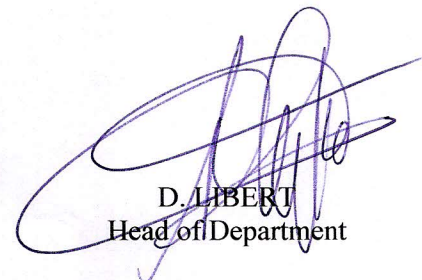
Tensile side : /

Nominal thickness : 10 mm

Sample number	Thickness (mm)	Strength (N/mm ²)	Criteria
1	10.00	152	> 120 N/mm ²
2	10.04	157	
3	10.02	175	
4	10.01	172	
5	10.00	148	
6	10.08	158	
7	10.03	134	
8	10.01	171	
9	10.04	166	
10	10.07	154	

C. Conclusion

The tests carried out on the samples considered in this report are in compliance with the requirements of the **EN 12150-1 standard for the fragmentation test** and for the **mechanical resistance** (methodology according to EN 1288-3).



D. LIBERT
Head of Department

Glazing and Components - INISMa

Tableau 1 – Description et dimensions des éprouvettes – Verres clairs 10mm

Nr. sample BBRI	Length L [mm]	Width B				Thickness h					Loading rate	
		B1 [mm]	B2 [mm]	B3 [mm]	Bmoy [mm]	h1 [mm]	h2 [mm]	h3 [mm]	h4 [mm]	hmoy [mm]	[N/s]	[kN/min]
SC1425-1-1	1100	359.50	359.50	359.54	359.5	10.00	10.00	10.00	9.99	10.00	60	3.598
SC1425-1-2	1100	359.62	359.16	359.15	359.3	10.06	10.05	10.02	10.02	10.04	60	3.627
SC1425-1-3	1100	359.47	359.05	359.91	359.5	10.04	10.00	10.04	10.00	10.02	60	3.614
SC1425-1-4	1100	358.89	358.95	359.09	359.0	10.00	10.01	10.02	10.01	10.01	60	3.607
SC1425-1-5	1100	359.31	359.16	359.12	359.2	10.00	9.99	10.00	10.00	10.00	60	3.598
SC1425-1-6	1100	359.75	359.59	359.53	359.6	10.10	10.06	10.09	10.06	10.08	61	3.656
SC1425-1-7	1100	359.17	359.26	359.47	359.3	10.01	10.05	10.02	10.05	10.03	60	3.623
SC1425-1-8	1100	359.59	359.69	359.77	359.7	10.00	10.01	10.00	10.01	10.01	60	3.604
SC1425-1-9	1100	359.49	359.54	359.56	359.5	10.06	10.06	10.01	10.02	10.04	60	3.627
SC1425-1-10	1100	359.00	359.76	359.54	359.4	10.05	10.09	10.10	10.05	10.07	61	3.652

Tableau 2 – Résultats des essais et calcul des contraintes de rupture – Verres clairs 10mm

Nr. sample BBRI	L [mm]	B [mm]	h [mm]	Loading rate [kN/min]	Date test	Pr [kN]	time [mm:ss]	Strength $\sigma_{0.05}$ [N/mm ²]	Deflection y/h [-]	k_e [-]	Edge strength $\sigma_{0.05}$ [N/mm ²]	Remarks (in / out bending rolls,
SC1425-1-1	1100	359.5	10.00	3.60	30/07/2014	4.49	01:13	151.6	4.2	1.108	168.0	IN on edge
SC1425-1-2	1100	359.3	10.04	3.63	30/07/2014	4.68	01:15	156.7	4.3		0.0	IN 20mm from edge
SC1425-1-3	1100	359.5	10.02	3.61	30/07/2014	5.20	01:23	174.5	4.8		0.0	IN 40mm from edge
SC1425-1-4	1100	359.0	10.01	3.61	30/07/2014	5.12	01:22	172.2	4.8		0.0	IN 10mm from edge
SC1425-1-5	1100	359.2	10.00	3.60	30/07/2014	4.38	01:10	147.9	4.1	1.108	164.0	IN on edge
SC1425-1-6	1100	359.6	10.08	3.66	30/07/2014	4.75	01:16	157.8	4.3	1.108	174.8	IN on edge
SC1425-1-7	1100	359.3	10.03	3.62	30/07/2014	4.00	01:04	134.3	3.7	1.105	148.4	IN on edge
SC1425-1-8	1100	359.7	10.01	3.60	30/07/2014	5.09	01:23	171.4	4.8	1.107	189.7	IN on edge
SC1425-1-9	1100	359.5	10.04	3.63	30/07/2014	4.97	01:21	166.3	4.6	1.107	184.2	IN on edge
SC1425-1-10	1100	359.4	10.07	3.65	30/07/2014	4.63	01:17	154.0	4.2	1.108	170.6	IN on edge