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Notified Body No.1394

Authorized body No. 225

INITIAL TYPE TEST REPORT

(determination of product type)

from determination of light and solar characteristics

according to the Regulation (EU) No 305/2011 of the European Parliament and of the Council No.305/2011 of 9 March 2011 (Construction Products Regulation – CPR (AoC system 3))

No. : 1394-CPR-97/2017

Test item : **Drawn sheet glass**


Producer (address): «Expo Glass», Limited Liability Company;
6, Gastello street, Vladimir City, 600026, Russian Federation

Number of pages : 2 incl. front page
Annexes: 1 (test report No.97/2017)

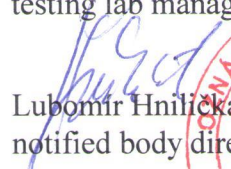
This test report is part document of notified body and cannot replace the summary report from initial type tests.

Date of issue : 2017-05-02

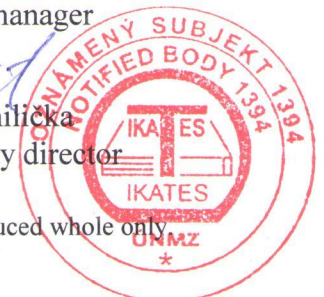
Person responsible for content of this report :


Jiri Stránský
testing lab manager

Person responsible for correctness of this report :


Lubomir Hnilicka
notified body director

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1. Test item specification

Product description and intended use: float glass for use in building

Producer: «Expo Glass», Limited Liability Company;
6, Gastello street, Vladimir City, 600026, Russian Federation

Specification: ČSN EN 410 (harmonised standard ČSN EN 572-9)

2. Sampling

Following test specimens were supplied to testing:

- Drawn sheet glass clear 3 mm and 4 mm – 5 pcs. 300x300 mm per thickness

3. ITT performance

Test was performed by: Jiří Stránský

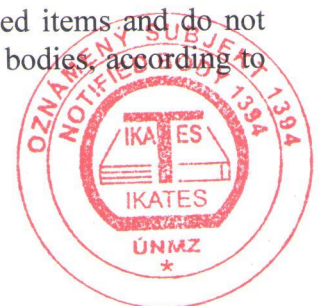
Date of test end: 2017-04-27

4. Test results :

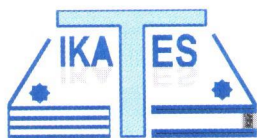
Observed characteristic: light and solar characteristics acc. to ČSN EN 410

Nominal thickness (mm)	Light transmittance $\tau_V(1)$	Light reflectance $\rho_V(1)$	direct solar energy transmittance $\tau_e(1)$	direct solar reflectance $\rho_e(1)$	total solar energy transmittance $g(1)$
3	0,91	0,08	0,89	0,08	0,89
4	0,90	0,08	0,87	0,08	0,88

Statement : Test results, given in this report, apply only to the tested items and do not replace other documents, e.g. administrative character, issued by other bodies, according to particular regulations.



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*Testing laboratory No.1139 accredited by Czech Accreditation Institute
acc to. ČSN EN ISO/IEC 17025 for glass and selected building products testing*

TEST REPORT

No. : 97 / 2017

Test item : **Drawn sheet glass**
- ITT according to ČSN EN 572-9

Client (address): «Expo Glass», Limited Liability Company;
6, Gastello street, Vladimir City, 600026, Russian Federation

Producer (address): «Expo Glass», Limited Liability Company;
6, Gastello street, Vladimir City, 600026, Russian Federation

Place of test performance : IKATES, s.r.o., Teplice

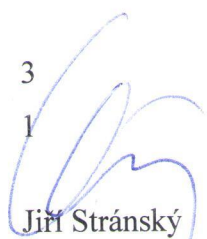
Date of sample receiving : 2017-04-13

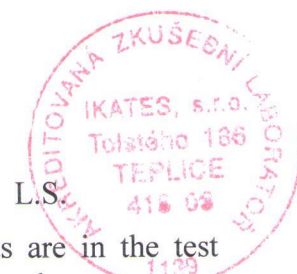
Date of test performance : 2017-04-24 to 2017-04-27

Date of issue : 2017-05-02

Number of pages : 3

Page No. : 1

Manager of testing laboratory :  Jiří Stránský



Results and/or informations out of accreditation range and subcontracts are in the test report identified. Copying and translating, using of report for other purposes (advertisement, extracts from the report) only with consent of the laboratory. Without consent of the laboratory can bet he report reproduced whole only.

No. : 97 / 2017	Number of pages : 3
	Page No. : 2

Normative foundations :

- ČSN 70 0621-1 (1991): Glass testing methods. Chemical analysis of glass. Determination of silica. Combined gravimetric and photometric method
- ČSN 70 0628-1 (1991): Glass testing methods. Chemical analysis of glass. Determination of alumina. Volumetric method with complexone 3
- ČSN 70 0638-1 (1978): Glass testing. Chemical analysis of glass. Determination of calcium oxide. Volumetric method with complexone 3
- ČSN 70 0639-1 (1978): Glass testing. Chemical analysis of glass. Determination of magnesium oxide. Volumetric method with complexone 3
- ČSN 70 0641-3 (1991): Glass testing methods. Chemical analysis of glass. Determination of alkali metal oxides. Flame photometric method (with the use of comparing solutions)
- ČSN EN 410 (2000): Glass in building – Determination of luminous and solar characteristics of glazing
- ČSN EN 572: Glass in building. Basic soda lime silicate glass products –
 Part 1+A1 (2017): Definitions and general physical and mechanical properties
 Part 4 (2012): Drawn sheet glass glass
 Part 8+A1 (2017): Supplied and final cut sizes
 Part 9 (2005): Evaluation of conformity/Product standard

Sampling :

Following test specimens were supplied to testing:

- Drawn sheet glass clear 3 mm and 4 mm – 5 pcs. 300x300 mm per thickness

Metrological provision of tests :

Thickness was measured with calibrated screw micrometer. Chemical analysis was carried out in the accredited Analytical Laboratory IKATES, s.r.o. Spectra were measured with spectrometer Shimadzu UV-3600 and evaluated with the validated software.

Test results :

1. Luminous and solar characteristics (ČSN EN 410)

Nominal thickness (mm)	Light transmittance $\tau_V(1)$	Light reflectance $\rho_V(1)$	direct solar energy transmittance $\tau_e(1)$	direct solar reflectance $\rho_e(1)$	total solar energy transmittance g(1)
3	0,91	0,08	0,89	0,08	0,89
4	0,90	0,08	0,87	0,08	0,88



No. : 97 / 2017	Number of pages : 3
	Page No. : 3

2. Thickness (ČSN EN 572-8, art. 5.2)

Nominal thickness/No.		Measured values				Average value
3 mm	1	2,94	2,98	2,92	2,84	2,9
	2	2,84	2,92	2,96	2,93	2,9
	3	2,78	2,82	2,80	2,75	2,8
	4	2,75	2,91	2,95	2,93	2,9
	5	2,75	2,92	2,93	2,92	2,9
4 mm	1	4,00	3,92	4,00	4,02	4,0
	2	3,97	3,96	3,90	3,89	3,9
	3	3,92	3,96	4,02	3,94	4,0
	4	3,97	4,02	3,99	3,97	4,0
	5	3,94	3,97	3,93	3,95	3,9

3. Chemical Analysis (ČSN EN 572-1)

- subcontract from accredited laboratory : Analytical lab IKATES, s.r.o.

	content (%)	test procedure
Silicon (Si)	33,69	ČSN 70 0621-1 (SOP 5.1)
Calcium (Ca)	5,28	ČSN 70 0638-1 (SOP 5.17)
Sodium (Na)	10,77	ČSN 70 0641-3 (SOP 5.22)
Magnesium (Mg)	2,24	ČSN 70 0639-1 (SOP 5.19)
Aluminium (Al)	0,65	ČSN 70 0628-1 (5.9)

Test result:

The samples are in agree with requirements of:

- standard EN 572-1+A1 on the chemical composition
- standards EN 572-4 and EN 572-8+A1 on the thickness

Statement : Test results, given in this report, apply only to the tested items and do not replace other documents, e.g. administrative character, issued by other bodies, according to particular regulations. The official version is in Czech language.

Distribution list :

2 x «Expo Glass», Limited Liability Company

1 x Laboratory for glass and building products testing IKATES, s.r.o. (archive)

Tests were carried out by :

Report was prepared by :

For correctness and validity of report is responsible :

end of the test report

