



DECLARATION OF CONFORMITY

G. TRIKKIS & SONS ENGINEERING LTD
Galileou 44, 3011, Lemesos, CYPRUS

ΠΕΡΙΓΡΑΦΗ ΠΡΟΙΟΝΤΟΣ / DESCRIPTION OF THE PRODUCT:

Ύαλος ασφαλείας πολλαπλών στρώσεων / Laminated Safety Glass (as characteristics below)

ΟΡΟΙ ΤΟΥΣ ΟΠΟΙΟΥΣ ΣΥΝΑΔΕΙ ΤΟ ΠΡΟΙΟΝ / PROVISIONS TO WHICH THE PRODUCT CONFORMS:

CYS EN 14449:2005 (ZA annex), CPD 89/106/EEC

CYS EN 12600:2002, REGULATION (EU) No 305/2011 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

ΟΝΟΜΑ ΚΑΙ ΔΙΕΥΘΥΝΣΗ ΕΡΓΑΣΤΗΡΙΟΥ :

NAME AND ADDRESS OF LABORATORY

NOTIFIED BODY

IKATES, s.r.o

Tolsteho 186, 415 03 Teplice, Czech Republic

Notified Body No: 1394

Accredited laboratory No: L 1139

ΕΙΔΙΚΕΣ ΠΡΟΝΟΙΕΣ ΚΑΤΑ ΤΗΝ ΕΦΑΡΜΟΓΗ ΤΟΥ ΠΡΟΙΟΝΤΟΣ :

PARTICULAR CONDITIONS APPLICABLE TO THE USE OF PRODUCTS:

Καμία

None

LAMINATED SAFETY GLASS CHARACTERISTICS:

- Resistance to fire:..... NPD
 - Reaction to fire:..... B
 - External fire performance: NPD
 - Bullet resistance:..... NPD
 - Explosion resistance: NPD
 - Burglar resistance: NPD
 - Pendulum body impact resistance: 2B2
 - Resistance against sudden temperature changes and temperature differentials: 40K
 - Wind, snow, permanent and imposed load resistance: 10.0mm
 - Direct airborne sound insulation: 34-1-3 dB
 - Thermal properties: 5.5 W/(m² K)
- Radiation properties:
- Light transmission and reflection: 0.70 / 0.13
 - Solar energy characteristics: 0.55/0.11

ΟΝΟΜΑ ΚΑΙ ΘΕΣΗ ΤΟΥ ΥΠΟΓΡΑΦΟΝΤΟΣ / NAME AND POSITION OF SIGNATORY

Νίκος Τρίκκης / Διευθυντής
Nikos Trikkis / Manager

Ημερομηνία:

Date: **01 / 10 / 2013**



IKATES, s.r.o.

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Notified Body No.1394

Authorized body No. 225

INITIAL TYPE TEST REPORT

from pendulum impact test

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-137B /2013

Test item : **Laminated safety glass 44.2**


Producer (address): **G.Trikkis & Sons LTD,
44 Galileo str., 3011 Lemesos, Cyprus**

Number of pages : 2 incl. front page
Annexes: 1 (test report No.137B/2013)


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

Date of issue : 2013-09-16

Person responsible for content of this report :


Jiří Stránský
testing lab manager

Person responsible for correctness of this report :


Lubomír Hnilička
notified body director



Notice: Without written consent of the notified body director can be this report reproduced whole only.

1. Test item specification

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

Producer: G.Trikkis & Sons LTD, 44 Galileo str., 3011 Lemesos, Cyprus

Specification: ČSN EN 12600

2. Sampling

To the tests were supplied following test specimens:

12 pcs. 876x1938 mm of laminated safety glass 44.2 (PA)

3. ITT performance

Test was performed by: Martin Siegl, Jiří Šnajdr

Date of test end: 2013-05-22

4. Test results :

The tested product is classified as follows:

Laminated safety glass 44.2 (PA)

EN 12600 2(B)2

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



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Accredited testing laboratory No. 1139

accredited by Czech Institute of Accreditation in Prague

for glass and selected building products testing

TEST REPORT

No. : 137B / 2013

Test item :

Laminated safety glass

- initial type tests - pendulum impact test acc. to ČSN EN 12600

Client (address):

G.Trikkis & Sons LTD,
44 Galileo str., 3011 Lemesos, Cyprus

Producer (address):

G.Trikkis & Sons LTD,
44 Galileo str., 3011 Lemesos, Cyprus

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

Date of sample receiving : 2013-05-10

Date of test performance : 2013-05-22

Date of issue : 2013-09-16

Number of pages :

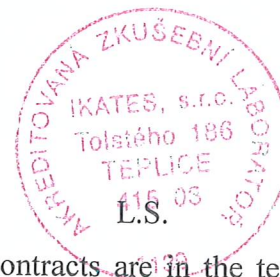
3

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 be the report reproduced whole only.

No. : 137B / 2013	Number of pages : 3
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Normative foundations :

ČSN EN 12600 (2003): Glass in building – Pendulum test - Impact test method and classification for flat glass

Sampling :

To the testing were supplied following test specimens:

12 pcs. of laminated glass 44.2 (PA) with dimensions 876x1938 mm

Metrological provision of tests :

The calibrated measuring gauges were used during testing. Pendulum impact test was carried out with impactor: weight with tyres – mass 50 kg. Last calibration of EN 12600 test rig on 2012-03-16.

Test results :

Pendulum impact test (according to ČSN EN 12600)

Structure	State after impact from height of			
	No.	190 mm	450 mm	1200 mm
44.2	1	breakage, no rupture	-	-
	2	breakage, no rupture	-	-
	3	breakage, no rupture	-	-
	4	no breakage	-	-
	5	-	breakage, no rupture	-
	6	-	breakage, rupture 50 mm	-
	7	-	no breakage	-
	8	-	breakage, no rupture	-
	9	-	-	failed
	10	-	-	failed
	11	-	-	failed
	12	-	-	failed

Classification: EN 12600 - 2(B)2



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

Distribution list :

2 x G.Trikkis & Sons LTD,

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

Tests was performed by :


Martin Siegl, Jiří Šnajdr

Report was performed by :

For correctness and validity of report is responsible :

end of the test report


Jiří Stránský



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Accredited testing laboratory No.1139

accredited by Czech Institute of Accreditation in Prague

for glass and selected building products testing

TEST REPORT

No. : 137A / 2013

Test item : **Laminated glass and laminated safety glass
- initial type tests according to ČSN EN 14449**

Client (address): G.Trikkis & Sons LTD,
44 Galileo str., 3011 Lemesos, Cyprus

Producer (address): G.Trikkis & Sons LTD,
44 Galileo str., 3011 Lemesos, Cyprus

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

Date of sample receiving : 2013-05-10

Date of test performance : 2013-05-20 to 2013-08-30

Date of issue : 2013-09-16

Number of pages : 3

Page No. : 1

Manager of testing laboratory : Jiří Stránský



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No. : 137A / 2013	Number of pages : 3
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Normative foundations :

ČSN EN ISO 12543 (2012): Glass in building – Laminated glass and laminated safety glass

ČSN EN 14449 (2006): Glass in building – Laminated glass and laminated safety glass – Evaluation of conformity/Product standard

Sampling :

To the tests were supplied following test specimens of laminated glass:

for high humidity test (dimensions 100x300 mm):

- 44.1; 44.2; 44.3; 44.4 - per 3 pcs.

for high temperature test (dimensions 100x300 mm)::

- 44.1; 44.2; 44.3; 44.4 - per 3 pcs.

for radiation test (dimensions 300x300 mm):

- 44.4 - 3 pcs.

Note: No edge protection was used.

44.1 = float 4 mm + 0,38 mm PA + float 4 mm

44.2 = float 4 mm + 0,76 mm PA + float 4 mm

44.3 = float 4 mm + 1,14 mm PA + float 4 mm

44.4 = float 4 mm + 1,52 mm PA + float 4 mm

Metrological provision of tests :

Calibrated measuring gauges were used for testing. Humidity test was carried out in the climatic chamber Hygrotherm Erichsen controlled with calibrated thermometer. High temperature test was carried out in the climate chambre CTS controlled with calibrated thermometer.

The radiation test was performed in testing equipment – radiation wall with Ultravitalux lamps. Light transmittance before and after the test was measured using of spectrometer Shimadzu with metrological traceability. Irradiance was measured with pyranometer Kipp & Zonen CM-6B with metrological traceability.

Test results :

1. Humidity test with condensation (according to ČSN EN ISO 12543-4, cl.6.3.1)

Composition (structure)	changes in the evaluated area
	sample 1 to 3
44.1; 44.2; 44.3; 44.4	no changes



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2. High temperature test (according to ČSN EN ISO 12543-4, cl.5.3.2)

Composition (structure)	changes in the evaluated area
	sample 1 to 3
44.1; 44.2; 44.3; 44.4	no changes

3. Radiation test (ČSN EN ISO 12543-4, cl.7.3.1) – 2000 hours

In the evaluated area of tested specimens weren't found any changes.

Sample No.		Light transmittance τ_v (%)	
		before the test	after the test
44.4	1	82,4	80,4
	2	82,8	82,2
	3	83,2	81,9

Expert viewpoint: Results of tests are in compliance with requirements of standard EN ISO 12543-3 for laminated glass.

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

Test was performed by :

Martin Siegl, Jiří Šnajdr, Jiří Stránský

Report was performed by :

For correctness and validity of report is responsible :

end of the test report

Jiří Stránský

