



# ΠΙΣΤΟΠΟΙΗΤΙΚΟ

Η TÜV CERT-Θέση Πιστοποίησης  
της TÜV NORD CERT GmbH & Co. KG  
πιστοποιεί σύμφωνα με τις διαδικασίες της  
TÜV CERT, ότι η εταιρία

**ΕΛ.ΒΙ.ΑΛ. Α.Ε.**

26° ΧΛΜ ΟΔΟΥ ΘΕΣΣΑΛΟΝΙΚΗΣ-ΚΙΛΚΙΣ,  
Τ.Κ. 611 00, ΚΙΛΚΙΣ, ΕΛΛΑΔΑ

με πεδίο εφαρμογής

Σχεδιασμός και Ανάπτυξη Προϊόντων Αλουμινίου,  
Διέλαση Αλουμινίου και Παραγωγή Προφίλ Αλουμινίου,  
Ηλεκτροστατική Βαφή Αλουμινίου,  
Βαφή σε απομίμηση Ξύλου και Συρραφή Θερμομονωτικών Προφίλ Αλουμινίου,  
Εμπορεία Εξαρτημάτων Καυφωμάτων Αλουμινίου,  
Παραγωγή Προφίλ από διαμόρφωση Ελασμάτων Αλουμινίου και  
Χάλυβα (Roll Forming)  
για φυλλαράκια ALU με πολυουρεθάνη και άξονες χαλύβδινους

έχει εγκαταστήσει και εφαρμόζει ένα

Σύστημα Διαχείρισης Ποιότητας

Μέσω μίας Επιθεώρησης, αριθμός έκθεσης: **8000 318 992**

τεκμηριώθηκε, ότι πληρούνται οι απαιτήσεις της

**ISO 9001 : 2000**

Το πιστοποιητικό έχει ισχύ έως τις **2007-11-24**

Αριθμός πρωτοκόλου πιστοποιητικού **78 100 3506**



TSA-ZM-22-96-00



**TÜV NORD CERT**

Λινόβερο, 2004-11-25

*haseberg*  
Η TÜV CERT-Θέση Πιστοποίησης  
της TÜV NORD CERT GmbH & Co. KG



# CERTIFICATE

The TÜV CERT Certification Body of  
TÜV NORD CERT GmbH & Co. KG  
certifies in accordance with TÜV CERT  
procedures that

**ELVIAL S.A.**

26<sup>th</sup> Km national road Thessalonikis Kilkis,  
GR-611 00, Kilkis, GREECE

has established and applies a quality management system for

**Design and Development of Aluminium Products.**  
**Extrusion of Aluminium and Production of Aluminium Profiles,**  
**Electrostatic Powder Coatings for Aluminium, Powder Coating**  
**with Wood Effect. Production of Thermal Brake Aluminium Profiles.**  
**Trade of Aluminium Parts for Door and Window Frames.**  
**Production of Profiles by Roll Forming of Aluminium and**  
**Steel for ALU sheets with polyurethane and Steel axes.**

An audit was performed, Report No. **8000 318 992**

Proof has been furnished that the requirements according to

**ISO 9001 : 2000**

are fulfilled.

The certificate is valid until **2007-11-24**

Certificate Registration No. **78 100 3506**



**TÜV NORD CERT**

*haseberg*  
TÜV CERT Certification Body of  
TÜV NORD CERT GmbH & Co. KG

Hannover, 2004-11-25

**5600 multilock**

**Evidence of performance**  
Burglar resistant characteristics

Test report 211 28260



Client **ELVIAL S.A.**  
**Aluminium Extrusion**  
P.O. Box 79

61100 Thessaloniki-Kilkis  
Griechenland

**Relevant standards and documents**

DIN V ENV 1627 : 1999  
Windows, doors, shutters –  
Burglar resistance – Require-  
ments and classification  
DIN V ENV 1628 : 1999  
DIN V ENV 1629 : 1999  
DIN V ENV 1630 : 1999

**Presentation**



Product	Burglar resistant casement door assembly without fixed central mullion
Designation	Multi lock 5600
Exterior dimensions (W x H)	1400 mm x 2200 mm
(Frame) Material	Aluminium
Attack side	Lock side/Locking face according to DIN 107
Mode of operation	Double leaf, side-hung/side-and-bottom-hung
Glazing	DIN EN 356 Class P4
Hardware	Jet D, GU with 21 burglar resistant locks and lockable window handle F/Z RAL, GU
Installation	According to installation instructions by company ELVIAL S.A.
Special features	-/-

**Instructions for use**

The present summary serves to demonstrate the burglar resistant characteristics of building elements

**Validity**

The data and results given refer exclusively to the tested and described test specimen.

Testing for burglar resistance does not provide any information on any additional characteristics specific to the performance and quality of the construction submitted.

Notwithstanding the tested versions, the following dimensional changes are permitted:  
width: +10% and -20%  
height: +10% and -20%

**Publishing notes**

The ift document "Merkblatt „Bedingungen und Hinweise zur Benutzung von ift-Prüf-Dokumentationen" (Conditions and guidance for the use of ift test documents) shall apply. The cover sheet can be used as abstract.

**Contents**

The evidence of performance comprises a total of 22 pages:

- 1 Item
  - 2 Procedure
  - 3 Individual results
  - 4 Evaluation
- Annex 1 (7 pages)  
Annex 2 (3 pages)

**Burglar resistance**



**Resistance class 2**

ift Rosenheim

pp. Christian Keller  
Head Safety/Security Testing Windows, Doors

**5600 multilock**

**Classification Report**

Resistance to wind load  
Watertightness  
Air permeability



Test report 102 28260/3e\*)

\*) This test report is a translation of test report No. 102 28260/3 dated 08 February 2005. Only the German original is legally binding.

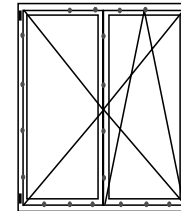
Client **ELVIAL S.A.**  
**Aluminium Extrusion**  
26th km national road

GR-61100 Thessaloniki-Kilkis  
Greece

**Basis**

prEN 14351-1 : 2004-04,  
Windows and external  
pedestrian doorsets – Product  
standard.  
Test standards:  
EN 1026 : 2000-06  
EN 1027 : 2000-06  
EN 12211 : 2000-06

**Representation**



Product	Double tilt and turn casement door without fixed central mullion
Designation	5600 (thermal break)
Exterior dimensions (W x H)	2362 mm x 2407 mm
Frame material	Aluminium thermal break profiles
Special features	-/-

**Instructions for use**

The present test report serves to demonstrate the above characteristics for windows as set out by prEN 14351-1 :2003-04.  
Validity

The data and results given relate solely to the tested and described test specimen. The test results can be extrapolated to constructions of the same or smaller sizes of the same design, type of rebate and similar format under observation of the relevant casement weights. The present test does not provide any information on the characteristics of the present design regarding performance and quality, in particular the effects of weathering and ageing were not taken into account.

**Notes on publication**

The ift-Guidance Sheet "Conditions and Guidance for the Use of ift Test Documents" applies.

The cover sheet can be used as abstract.

**Contents**

The test report comprises a total of 8 pages.

- 1 Object
- 2 Procedure
- 3 Detailed results

Resistance to wind load – EN 12210



**Class C3 / B4**

Watertightness – EN 12208



**Class 7A**

Air permeability – EN 12207



**Class 4**

ift Rosenheim  
25 April 2005

J. V. Jörn Peter Lass, Dipl.-Ing. (FH)  
Commercial Director  
ift Centre Windows and Facades

M. Markus Egli, Dipl.-Ing. (FH)  
Test Engineer  
ift Centre Window and Facades



ift Rosenheim GmbH  
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Dr. Jochen Reichl

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BLZ 711 500 00

Anerkante Prüf-, Überwachungs-  
und Zertifizierungsstelle  
nach Landesakkreditierung (BAY 18)  
Notifizierung in Europa: Nr. 0767



## 5600 multilock

## Classification Report

Resistance to wind load  
Watertightness  
Air permeability

Test report 102 28260/1e\*)

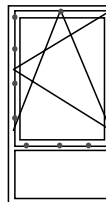
\*) This test report is a translation of test report  
No. 102 28260/1 dated 08 February 2005. Only the  
German original is legally binding.Client **ELVIAL S.A.**  
**Aluminium Extrusion**  
26th km national roadGR-61100 Thessaloniki-Kilkis  
Greece

## Basis

prEN 14351-1 : 2004-04,  
Windows and external  
pedestrian doorsets – Product  
standard  
Test standards:  
EN 1026 : 2000-06  
EN 1027 : 2000-06  
EN 12211 : 2000-06

Product	Window unit with tilt and turn casement and fixed sublight
Designation	5600 (thermal break)
Exterior dimensions (W x H)	1407 mm x 2500 mm
Frame material	Aluminium thermal break profiles
Special features	-/-

## Representation



## Instructions for use

The present test report serves to demonstrate the above characteristics for windows as set out by prEN 14351-1 :2004-04.  
Validity

The data and results given relate solely to the tested and described test specimen.

The test results can be extrapolated to constructions of the same or smaller sizes of the same design, type of rebate and similar format under observation of the relevant casement weights.

The present test does not provide any information on the characteristics of the present design regarding performance and quality, in particular the effects of weathering and ageing were not taken into account.

## Notes on publication

The ift-Guidance Sheet "Conditions and Guidance for the Use of ift Test Documents" applies.

The cover sheet can be used as abstract.

## Contents

The test report comprises a total of 8 pages.

- 1 Object
- 2 Procedure
- 3 Detailed results

## Resistance to wind load – EN 12210



Class C3 / B3

## Watertightness – EN 12208



Class E 900

## Air permeability – EN 12207



Class 4

ift Rosenheim  
25 April 2005

i. V. Jörn Peter Lass, Dipl.-Ing. (FH)  
Commercial Director  
ift Centre for Windows and Facades

i. A. Markus Egli, Dipl.-Ing. (FH)  
Test Engineer  
ift Centre for Windows and Facades

## 5600 multilock

## Evidence of performance

Resistance to wind load  
Water tightness  
Air permeability

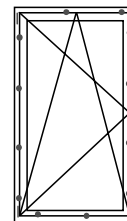
## Test report 102 28260/2e \*

\* This test report is a translation of test report  
no. 102 28260/2 dated 9 September 2004Client **ELVIAL S.A.**  
**Aluminium Extrusion**  
P.O. Box 7961100 Thessaloniki-Kilkis  
Greece

## Relevant standards and documents

prEN 14351-1 : 2004-04,  
Windows and external  
pedestrian doors – Product  
standardTest standards:  
EN 1026 : 2000-06  
EN 1027 : 2000-06  
EN 12211 : 2000-06

## Illustration



Product	Tilt and turn door
Designation	5600 (thermal break)
Exterior dimensions (w x h)	1207 mm x 2407 mm
Frame material	Thermal break aluminium profiles
Special features:	-/-

## Instructions for use

The present test report serves to demonstrate the above characteristics for windows according to prEN 14351-1: 2004-04.

## Validity

The data and results given refer exclusively to the tested and described test specimen.

The test results can be extrapolated for the same or smaller dimensions of the same design, type of rebate, attachment and similar format under observance of the relevant casement weights.

The present test does not give any information on any further characteristics referring to the performance and quality of the design presented. It should be especially noted that the effects of ageing and weathering were not taken into account.

## Notes and publication:

The ift data sheet „Notes on using ift test reports“ shall apply.

The covering sheet can be used as a brief version.

## Contents:

The test evidence comprises a total of 7 pages

- 1 Test item
- 2 Procedure
- 3 Individual results

## Resistance to wind load – EN 12210



Class C5 / B5

## Water tightness – EN 12208



Class 9A

## Air permeability – EN 12207



Class 4

ift Rosenheim  
25 October 2004Ulrich Sieberath  
Director of Instituteift Rosenheim GmbH  
Geschäftsführer:  
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Sparkasse Rosenheim  
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BLZ 711 600 00Anerkennung Prüf-, Überwachungs-  
und Zertifizierungsstelle  
nach Landesverordnung (Bay18  
Notifizierung in Europa: Nr. 0757

**5600 multilock**

**Classification Report**  
Energy Economy and Heat Retention

Test report 432 28260e

This test report is a translation of test report no. 432 28260 dated 1. September 2004



Customer **ELVIAL S.A.**  
**Aluminium Extrusion**  
26th km national road

61100 Thessaloniki-Kilkis  
Greece

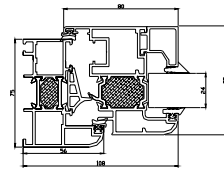
**Basis**

ift Guideline WA-01/1 (July 2002) „Guideline for the determination of  $U_f$ -values for metal profile sections of window systems with thermal break“

EN ISO 10077-2 : 2003-10  
Calculation of thermal transmittance  $U_f$  – Part 2: Numerical method for frames  
Corresponds to the national version of DIN EN ISO

Product	Fixed systems: frame / transom sections Moving systems: sash-frame-transom-combination
System designation	Elvial 5600
Cross-sectional dimensions	depth frame / transom sections 75 (65) mm depth sash 75 mm
Projected Width	width is variable
Material surface	Aluminium-profile with thermal break, powder coated, anodised
Type and material of insulation zone	continuous thermal break made from PA 66 25 % GF Polyurethane foam infill material thermal conductivity design value = 0,035 W/(m K)
Special Features	-/-

**Representation**  
see Annex 1



**Instructions for use**

This test report may be used to classify the thermal transmittance  $U_f$  for the tested profile system.

**Thermal transmittance**



$$U_f = 2,1 - 3,0 \text{ W/(m}^2 \cdot \text{K)} *$$

\* The values are based on the range of profile combinations shown in Tables 4 and 5. For further profile combinations of the system the determination of the  $U_f$ -values can be based on the trend line given in Table 6.

**Validity**

The data and results given relate solely to the described, tested object.

Testing the thermal transmittance does not allow any statement to be made on further characteristics of the present structure which could define performance and quality..

**Notes on publication**

The ift notice „Notes on the use of ift test reports“ applies.

The cover sheet can be used as a summary.

**Contents**

The report contains 12 pages

- 1 Object
- 2 Procedure
- 3 Detailed results  
Annex 1 (4 pages)



ift Rosenheim  
1. September 2004

*Ulrich Sieberath*  
Ulrich Sieberath  
Director

*i. A. Hans-Jürgen Patmann*  
i. A. Hans-Jürgen Patmann  
Head of Heat Insulation and Energy Technology Department



## 5600 multilock

## Classification Report

Airborne sound insulation of building elements

Test report 161 28260/1.0.0e

This is a translation of the test report No. 161 28260/1.0.0 dated 26 August 2004

Client **ELVIAL S.A.**  
**Aluminium Extrusion**  
 26th km national road  
  
 61100 Thessaloniki-Kilkis  
 Greece



## Relevant standards and documents

EN 20140-3 : 1995-01  
 Laboratory measurement of sound insulation of building elements  
 EN ISO 717-1 : 1996-12  
 Acoustics – Rating of sound insulation in buildings and of building elements – Part 1 Airborne sound insulation  
 Correspond to the national version of DIN EN 20140-3 and DIN EN ISO 717-1.

Product **Single window, single leaf**  
 System designation **5600**

Exterior dimensions (W x H) **1230mm x 1480mm**

Material **Thermal-break aluminium profiles**

Mode of operation **Tilt and turn**

Glazing **Insulating glass unit, 5/14/4**

Special features **The test was performed by LSW -Gm bH, the acoustic test center (Schallprüfzentrum) of the ift Rosenheim**

## Illustration



## Instructions for use

This test report may be used to demonstrate the sound insulation of building elements.

## Validity

The data and results given relate solely to the described, tested object.

Testing for sound insulation does not provide any information on additional properties referring to the performance and quality of the design presented.

## Publishing notes

The ift publication "Conditions and notes for the use of ift-test documents" applies.

The cover sheet can be used as a summary.

## Contents

The report comprises a total of 9 pages

- 1 Item
- 2 Procedure
- 3 Detailed results
- 4 Data sheet (1 page)

Weighted sound reduction index  $R_w$   
 Spectrum adaptation terms C and  $C_{tr}$



$$R_w (C; C_{tr}) = 36 (-2; -4) \text{ dB}$$

ift Rosenheim  
 16. November 2004

*Ulrich Sieberth*  
 Ulrich Sieberth  
 Director

*Bernd Saß*  
 pp Bernd Saß  
 Head of Building Acoustics

**5400 multilock**

**Classification Report**

Resistance to wind load

Watertightness

Air permeability

Test report 102 28261/3e\*)

\*) This test report is a translation of test report  
No. 102 28261/3 dated 08 February 2005. Only the  
German original is legally binding.

Client **ELVIAL S.A.**  
**Aluminium Extrusion**  
26th km national road

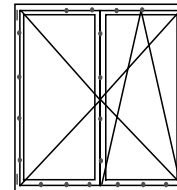
GR-61100 Thessaloniki-Kilkis  
Greece



**Basis**

prEN 14351-1 : 2004-04,  
Windows and external  
pedestrian doorsets – Product  
standard, Test standards:  
EN 1026 : 2000-06  
EN 1027 : 2000-06  
EN 12211 : 2000-06

**Representation**



Product	Double tilt and turn casement door without fixed central mullion
Designation	5400 (without thermal break)
Exterior dimensions (W x H)	2359 mm x 2407 mm
Frame material	Aluminium
Special features	-/-

**Instructions for use**

The present test report serves to demonstrate the above characteristics for windows as set out by prEN 14351-1 :2004-04.

**Validity**

The data and results given relate solely to the tested and described test specimen. The test results can be extrapolated to constructions of the same or smaller sizes of the same design, type of rebate and similar format under observation of the relevant casement weights.

The present test does not provide any information on the characteristics of the present design regarding performance and quality, in particular the effects of weathering and ageing were not taken into account.

**Notes on publication**

The ift-Guidance Sheet "Conditions and Guidance for the Use of ift Test Documents" applies.

The cover sheet can be used as abstract.

Resistance to wind load – EN 12210



**Class C3 / B3**

Watertightness – EN 12208



**Class 7A**

Air permeability – EN 12207



**Class 4**

ift Rosenheim  
25 April 2005

i. V. Jörn Peter Lass, Dipl.-Ing. (FH)  
Commercial Director  
ift Centre Windows and Facades

i. A. Markus Egli, Dipl.-Ing. (FH)  
Test Engineer  
ift Centre Windows and Facades

**Contents**

The test report comprises a total of 8 pages.

- 1 Object
- 2 Procedure
- 3 Detailed results

**5400 multilock**

**Classification Report**

Resistance to wind load  
Watertightness  
Air permeability



Test report 102 28261/1e\*)

\*) This test report is a translation of test report No. 102 28261/1 dated 08 February 2005. Only the German original is legally binding.

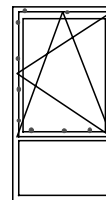
Client **ELVIAL S.A.**  
Aluminium Extrusion  
26th km national road

GR-61100 Thessaloniki-Kilkis  
Greece

**Basis**

prEN 14351-1 : 2004-04,  
Windows and external  
pedestrian doorsets – Product  
standard  
Test standards:  
EN 1026 : 2000-06  
EN 1027 : 2000-06  
EN 12211 : 2000-06

**Representation**



Product	Window unit with tilt and turn casement and fixed sublight
Designation	5400 (without thermal break)
Exterior dimensions (W x H)	1404 mm x 2500 mm
Frame material	Aluminium
Special features	-/-

**Instructions for use**

The present test report serves to demonstrate the above characteristics for windows as set out by prEN 14351-1:2004-04.  
Validity

The data and results given relate solely to the tested and described test specimen.  
The test results can be extrapolated to constructions of the same or smaller sizes of the same design, type of rebate and similar format under observation of the relevant casement weights.

The present test does not provide any information on the characteristics of the present design regarding performance and quality, in particular the effects of weathering and ageing were not taken into account.

**Notes on publication**

The ift-Guidance Sheet "Conditions and Guidance for the Use of ift Test Documents" applies.

The cover sheet can be used as abstract.

**Contents**

The test report comprises a total of 8 pages.

- 1 Object
- 2 Procedure
- 3 Detailed results

**Resistance to wind load – EN 12210**



**Class C3 / B3**

**Watertightness – EN 12208**



**Class E 1050**

**Air permeability – EN 12207**



**Class 4**

ift Rosenheim  
25 April 2005

i. V. Jörn Peter Lass, Dipl.-Ing. (FH)  
Commercial Director  
ift Centre Windows and Facades

i. A. Markus Egli, Dipl.-Ing. (FH)  
Test Engineer  
ift Centre Windows and Facades

**5400 multilock**

**Classification Report**  
Resistance to wind load  
Watertightness  
Air permeability



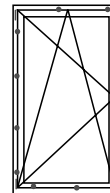
Test report 102 28261/2e\*)

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Client **ELVIAL S.A.**  
**Aluminium Extrusion**  
26th km national road  
  
GR-61100 Thessaloniki-Kilkis  
Greece

Basis  
prEN 14351-1 : 2004-04,  
Windows and external  
pedestrian doorsets – Product  
standard  
Test standards:  
EN 1026 : 2000-06  
EN 1027 : 2000-06  
EN 12211 : 2000-06

Representation



Product	Single tilt and turn door
Designation	5400 (without thermal break)
Exterior dimensions (W x H)	1204 mm x 2404 mm
Frame material	Aluminium
Special features	-/-

Instructions for use

The present test report serves to demonstrate the above characteristics for windows as set out by prEN 14351-1 :2004-04.

Validity

The data and results given relate solely to the tested and described test specimen.  
The test results can be extrapolated to constructions of the same or smaller sizes of the same design, type of rebate and similar format under observation of the relevant casement weights.

The present test does not provide any information on the characteristics of the present design regarding performance and quality, in particular the effects of weathering and ageing were not taken into account.

Notes on publication

The ift-Guidance Sheet "Conditions and Guidance for the Use of ift Test Documents" applies.

The cover sheet can be used as abstract.

Contents

The test report comprises a total of 7 pages.  
1 Object  
2 Procedure  
3 Detailed results

Resistance to wind load – EN 12210



**Class C5 / B5**

Watertightness – EN 12208



**Class 9A**

Air permeability – EN 12207



**Class 4**

ift Rosenheim  
25 April 2005

J. V. Jörn Peter Lass, Dipl.-Ing. (FH)  
Commercial Director  
ift Centre Windows and Facades

i. A. Markus Egli, Dipl.-Ing. (FH)  
Test Engineer  
ift Centre Windows and Facades

## 5400 multilock

## Classification Report

Airborne sound insulation of building elements

Test report 161 28261/1.0.0e

This is a translation of the test report No. 161 28261/1.0.0 dated 26 August 2004

Auftraggeber **ELVIAL S.A.**  
**Aluminium Extrusion**  
 26th km national road

61100 Thessaloniki-Kilkis  
 Griechenland



## Relevant standards and documents

EN 20140-3 : 1995-01  
 Laboratory measurement of sound insulation of building elements  
 EN ISO 717-1 : 1996-12  
 Acoustics – Rating of sound insulation in buildings and of building elements – Part 1 Airborne sound insulation  
 Correspond to the national version of DIN EN 20140-3 and DIN EN ISO 717-1..

## Illustration



## Instructions for use

This test report may be used to demonstrate the sound insulation of building elements..

## Validity

The data and results given relate solely to the described, tested object.

Testing for sound insulation does not to provide any information on additional properties referring to the performance and quality of the design presented.

## Publishing notes

The ift publication "Conditions and notes for the use of ift-test documents" applies.

The cover sheet can be used as a summary..

## Contents

The report comprises a total of 8 pages

- 1 Item
- 2 Procedure
- 3 Detailed results
- 4 Data sheet (1 page)

Product	Single window, single leaf
System designation	5400
Exterior dimensions (W x H)	1230 mm x 1480 mm
Material	Aluminium profiles without thermal-break
Mode of operation	Tilt and turn
Glazing	Insulating glass unit, 5/14/4
Special features	The test was performed by LSW-GmbH, the acoustic test center (Schallprüfzentrum) of the ift Rosenheim

Weighted sound reduction index  $R_w$   
 Spectrum adaptation terms C and  $C_{tr}$



$$R_w (C; C_{tr}) = 36 (-1; -4) \text{ dB}$$

ift Rosenheim  
 11. November 2004

*Ulrich Sieberath*

Ulrich Sieberath  
 Director

*Bernd Saß*

i. A. Bernd Saß  
 Head of Building Acoustics



**5000 Alexandros**

**Nachweis**

Luftdurchlässigkeit  
Schlagregendichtheit  
Widerstandsfähigkeit bei Windlast

Prüfbericht 102 25649



Auftraggeber **ELVIAL S.A.**  
**Aluminium Extrusion**  
26th km national road

61100 Thessaloniki - Kilkis

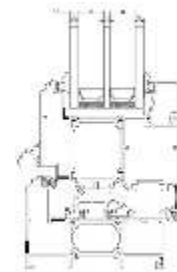
**Grundlagen**

EN 1026 : 2000 – 06  
EN 1027 : 2000 – 06  
EN 12211 : 2000 – 06

EN 12207 : 1999 - 11  
EN 12208 : 1999 - 11  
EN 12210 : 1999 - 11

Produkt/Bauteil	Einfachfenster
Bezeichnung	el-5000 Alexandros
Außenmaß (B x H)	800 mm x 1000 mm
(Rahmen) Material	Aluminium-Verbundprofile
Beschlag	Dreh

**Schematische Darstellung**



**Verwendungshinweise**

Dieser Prüfbericht dient zum Nachweis der Eigenschaften für Fenster nach prEN 14351.

**Luftdurchlässigkeit**



**Klasse 3**

**Schlagregendichtheit**



**Klasse 2A**

**Widerstandsfähigkeit bei Windlast**



**Klasse C5**

**Gültigkeit**

Die Daten und Ergebnisse beziehen sich ausschließlich auf den geprüften und beschriebenen Probekörper.

Eine Übertragung ist möglich gemäß prEN 14351 Tabelle E.1 bei ähnlichem Format und Einhaltung des Flügelgewichts.

Witterungs- und Alterungerscheinungen wurden nicht berücksichtigt.

**Veröffentlichungshinweise**

Es gilt das ift-Merkblatt „Hinweise zur Benutzung von ift-Prüfberichten“.

Das Deckblatt kann als Kurzfassung verwendet werden.

ift Rosenheim  
11. November 2009

*[Signature]*  
Dr. Helmut Hagemann  
Institutleiter

*[Signature]*  
L. V. Holzer-Bekard  
Leiter Prüfbereich Fenster & Fassade

**Inhalt**

Der Nachweis umfasst insgesamt 7 Seiten  
1 Gegenstand  
2 Durchführung  
3 Einzelergebnisse

**5000 Alexandros**

**Classification Report  
EnergySaving and Heat Retention**

Test report 403 25652/3e \*)



Customer **ELVIAL S.A.**  
**Aluminium Extrusion**  
26th km national road  
  
GR-61100 Thessaloniki-Kilkis

**Basis:**  
EN ISO 12567-1 : 2000-09  
Determination of thermal transmittance by hot box method – Part 1: Complete windows and doors  
Corresponds to the national version of DIN EN ISO.

Product	Single-Window
System designation	el-5000 Alexandros
External Dimensions (W x H)	800 mm x 1000 mm
(Frame) Material	Aluminium profile sections with thermal break
Type of Opening	Turn
Glazing	Insulating glass unit, Single-Window Construction: 5/15/4/15/5 mm, Gas filling: Air Coating: no IR reflecting coating spacer aluminium
Specials	*) This test report is a translation of the test report 403 25652/3 dated 22 October 2002.

**Representation**



**Instructions for use**

This test report may be used to classify the thermal transmittance UW

**Validity**

The data and results given relate solely to the described, tested object.

Testing the thermal transmittance does not allow any statement to be made on further characteristics of the present structure which could define performance and quality.

**Notes on publication**

The ift Notice "Notes on the use of ift Test Reports" applies. The cover sheet can be used as a summary.

**Contents**

The report contains 6 pages in total  
1 Object  
2 Procedure  
3 Detailed results

**Thermal transmittance**



**UW= 2,3 W/(m<sup>2</sup>·K)**

ift Rosenheim  
27. November 2002  
  
*[Signature]*  
Dr. Helmut Helberstein  
Director

*[Circular Stamp: ift ROSENHEIM]*  
*[Signature]*  
Dr. Hans-Jürgen Lehmann  
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**5000 Alexandros**

**Classification report**  
Sound reduction of building elements

Test report 161 25651/1.0.0e \*)

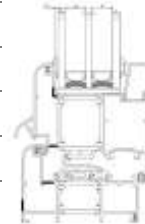


Customer **ELVIAL S.A.**  
**Aluminium Extrusion**  
26th km national road  
  
61100 Thessaloniki-Kilkis

**Foundation**  
EN 20140-3 : 1995-01  
Laboratory measurements of airborne sound insulation of building elements  
EN ISO 717-1 : 1996-12  
Acoustics – Rating of sound insulation in buildings and of building elements - Part 1: Airborne sound reduction  
Similar to DIN EN 20140-3 and DIN EN ISO 717-1

Specimen	Single-Window
System designation	el-5000 Alexandros
Size (W x H)	800 mm x 1000 mm
Material	Aluminium-plastic profile
Opening	Turn
Glazing	5/15/4/15/5 mm
Specials	*) This test report is a translation of test report no. 161 25651/1.0.0 of 23 September 2002

**Cross-section**



**Purpose**  
This test report prove the sound reduction for a building element.

**Validity**  
The values given in this test report are only valid for the tested specimen described.  
General conclusions for the construction and other functional details may not be drawn from this test report.

Weighted sound reduction index  $R_w$   
Spektrum-Adaption terms C and  $C_{tr}$



$R_w(C;C_{tr}) = 37 (-2;-2) \text{ dB}$

**Information for use**  
Regulations for the use of test reports are given in the enclosed information sheet „Conditions and information for use of ift test reports for publication and commercial purposes“.  
This report is a translation of the test report 161 25651/1.0.0 of 23. September 2002.

**Contents**  
This test report includes 6 pages  
1 Test specimen  
2 Test procedure  
3 Test results  
Data sheet (1 page)

ift Rosenheim  
23. September 2002

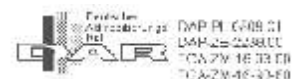
Dr. Herrit Hohenstein  
Direktor

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i. A. Herrmann  
Leiter of acoustic laboratory

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E-Mail: info@ift-ro.de



**2200 Thermo Classic**

**Nachweis**

Luftdurchlässigkeit  
Schlagregendichtheit  
Widerstandsfähigkeit bei Windlast



Prüfbericht 102 25647

Auftraggeber **ELVIAL S.A.**  
**Aluminium Extrusion**  
26th km national road  
  
61100 Thessaloniki-Kilkis

**Grundlagen**  
EN 1026 : 2000 – 06  
EN 1027 : 2000 – 06  
EN 12211 : 2000 – 06  
  
EN 12207 : 1999 - 11  
EN 12208 : 1999 - 11  
EN 12210 : 1999 - 11

**Schematische Darstellung**



**Verwendungshinweise**

Dieser Prüfbericht dient zum Nachweis der Eigenschaften für Fenster nach prEN 14351.

Produkt/Bauteil	Einfachfenster
Bezeichnung	el-2200 thermo Classic
Außenmaß (B x H)	800 mm x 1000 mm
(Rahmen) Material	Aluminium- Verbundprofile
Beschlag	Dreh / GU

**Luftdurchlässigkeit**



**Klasse 3**

**Schlagregendichtheit**



**Klasse 5A**

**Widerstandsfähigkeit bei Windlast**



**Klasse C5**

**Gültigkeit**

Die Daten und Ergebnisse beziehen sich ausschließlich auf den geprüften und beschriebenen Probekörper.

Eine Übertragung ist möglich gemäß prEN 14351 Tabelle E.1 bei ähnlichem Format und Einhaltung des Flügelgewichts.

Witterungs- und Alterungerscheinungen wurden nicht berücksichtigt.

**Veröffentlichungshinweise**

Es gilt das ift-Merkblatt „Hinweise zur Benutzung von ift-Prüfberichten“.

Das Deckblatt kann als Kurzfassung verwendet werden.

**Inhalt**

Der Nachweis umfasst insgesamt 7 Seiten

- 1 Gegenstand
- 2 Durchführung
- 3 Einzelergebnisse

ift Rosenheim  
11. November 2002

Dr. Helmut Hohenstein  
Institutsleiter

Dr. V. Florian Sewald  
Leiter Prüffeld Fenster & Fassaden

**2200 Thermo Classic**

**Classification Report  
EnergySaving and Heat Retention**

Test report 403 25652/2e \*)



Customer **ELVIAL S.A.**  
**Aluminium Extrusion**  
26th km national road

GR-61100 Thessaloniki-Kilkis

**Basis:**

EN ISO 12567-1 : 2000-09  
Determination of thermal transmittance by hot box method – Part 1: Complete windows and doors

Corresponds to the national version of DIN EN ISO.

Product	Single-Window
System designation	el-2200 thermo Classic
External Dimensions (W x H)	800 mm x 1000 mm
(Frame) Material	Aluminium profile sections with thermal break
Type of Opening	Turn
Glazing	Insulating glass unit, Single-Window Construction: 5/15/4 mm, Gas filling: Air Coating: no IR reflecting coating spacer aluminium
Specials	*) This test report is a translation of the test report 403 25652/2 dated 22 October 2002.

**Representation**



**Instructions for use**

This test report may be used to classify the thermal transmittance UW

**Validity**

The data and results given relate solely to the described, tested object.

Testing the thermal transmittance does not allow any statement to be made on further characteristics of the present structure which could define performance and quality.

**Thermal transmittance**



$UW = 3,1 \text{ W}/(\text{m}^2 \cdot \text{K})$

**Notes on publication**

The ift Notice "Notes on the use of ift Test Reports" applies.

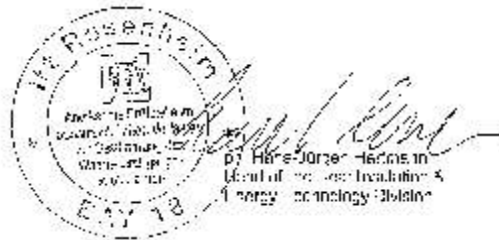
The cover sheet can be used as a summary.

**Contents**

The report contains 6 pages in total

- 1 Object
- 2 Procedure
- 3 Detailed results

ift Rosenheim  
27. November 2002  
  
Dr. Helmut Hohenstein  
Director



**2200 Thermo Classic**

**Classification report**  
Sound reduction of building elements

Test report 161 25651/2.0.0e \*)



Customer **ELVIAL S.A.**  
**Aluminium Extrusion**  
26th km national road  
  
61100 Thessaloniki-Kilkis

**Foundation**  
EN 20140-3 : 1995-01  
Laboratory measurements of airborne sound insulation of building elements  
EN ISO 717-1 : 1996-12  
Acoustics – Rating of sound insulation in buildings and of building elements - Part 1: Airborne sound reduction  
Similar to DIN EN 20140-3 and DIN EN ISO 717-1

Specimen	Single-Window
System designation	el-2200 thermo Classic
Size (W x H)	800 mm x 1000 mm
Material	Aluminium-plastic profile
Opening	Turn
Glazing	5/15/4 mm
Specials	*) This test report is a translation of test report no. 161 25651/2.0.0 of 23 September 2002

**Cross-section**



**Purpose**  
This test report prove the sound reduction for a building element.

**Validity**  
The values given in this test report are only valid for the tested specimen described.  
General conclusions for the construction and other functional details may not be drawn from this test report.

Weighted sound reduction index  $R_w$   
Spektrum-Adaption terms C and  $C_{tr}$



$R_w(C;C_{tr}) = 37 (-1;-3) \text{ dB}$

**Information for use**  
Regulations for the use of test reports are given in the enclosed information sheet „Conditions and information for use of ift test reports for publication and commercial purposes“.  
This report is a translation of the test report 161 25651/2.0.0 of 23. September 2002.

**Contents**  
This test report includes 6 pages  
1 Test specimen  
2 Test procedure  
3 Test results  
Data sheet (1 page)

ift Rosenheim  
23 September 2002  
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114 7840 87 7711 200 70



**2000 Benefit**

**Nachweis**  
Luftdurchlässigkeit  
Schlagregendichtheit  
Widerstandsfähigkeit bei Windlast



Prüfbericht 102 25648

Auftraggeber **ELVIAL S.A.**  
**Aluminium Extrusion**  
26th km national road  
61100 Thessaloniki - Kilkis

**Grundlagen**

EN 1026 : 2000 - 06  
EN 1027 : 2000 - 06  
EN 12211 : 2000 - 06

EN 12207 : 1999 - 11  
EN 12208 : 1999 - 11  
EN 12210 : 1999 - 11

**Schematische Darstellung**



Produkt/Bauteil	Einfachfenster
Bezeichnung	el-2000 Benefit
Außenmaß (B x H) (Rahmen) Material	800 mm x 1000 mm Aluminium-Profile
Beschlag	Dreh

**Verwendungshinweise**

Dieser Prüfbericht dient zum Nachweis der Eigenschaften für Fenster nach prEN 14351.

**Gültigkeit**

Die Daten und Ergebnisse beziehen sich ausschließlich auf den geprüften und beschriebenen Probekörper.

Eine Übertragung ist möglich gemäß prEN 14351 Tabelle E.1 bei ähnlichem Format und Einhaltung des Flügelgewichts.

Witterungs- und Alterungserscheinungen wurden nicht berücksichtigt.

**Veröffentlichungshinweise**

Es gilt das ift-Merkblatt „Hinweise zur Benutzung von ift-Prüfberichten“.

Das Deckblatt kann als Kurzfassung verwendet werden.

**Inhalt**

Der Nachweis umfasst insgesamt 7 Seiten

- 1 Gegenstand
- 2 Durchführung
- 3 Einzelergebnisse

**Luftdurchlässigkeit**



**Klasse 4**

**Schlagregendichtheit**



**Klasse 3A**

**Widerstandsfähigkeit bei Windlast**



**Klasse C4**

ift Rosenheim  
11. November 2002

*Dr. Helmut Hohenstein*  
Dr. Helmut Hohenstein  
Institutsleiter

*i.V. Florian Sewald*

i.V. Florian Sewald  
Leiter Prüffeld Fenster & Fassaden

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IFT INSTITUT FÜR BAUTEILE UND FASSADEN  
Friedberg-München  
Kno. 2219 26 50, BLD 700 100 80

**2000 Benefit**

**Classification report**  
Sound reduction of building elements

Test report 161 25651/3.0.0e \*)



Customer **ELVIALSA.**  
**Aluminium Extrusion**  
26th km national road  
  
61100 Thessaloniki-Kilkis

**Foundation**  
EN 20140-3 : 1995-01  
Laboratory measurements of  
airborne sound insulation of  
building elements  
EN ISO 717-1 : 1996-12  
Acoustics – Rating of sound in-  
sulation in buildings and of  
building elements - Part 1: Air-  
borne sound reduction  
Similar to DIN EN 20140-3 and  
DIN EN ISO 717-1

Specimen	Single-Window
System designation	el-2000 Benefit
Size (W x H)	800 mm x 1000 mm
Material	Aluminium profile
Opening	Turn
Glazing	5/12/4 mm
Specials	*) This test report is a translation of test report no. 161 25651/3.0.0 of 23 September 2002

**Cross-section**



**Purpose**  
This test report prove the sound reduction for a building element.

**Validity**  
The values given in this test report are only valid for the tested specimen described.  
General conclusions for the construction and other functional details may not be drawn from this test report.

Weighted sound reduction index  $R_w$   
Spektrum-Adaption terms C and  $C_{tr}$



$R_w(C; C_{tr}) = 36 (-2; -6) \text{ dB}$

**Information for use**  
Regulations for the use of test reports are given in the enclosed information sheet „Conditions and information for use of ift test reports for publication and commercial purposes“.  
This report is a translation of the test report 161 25651/3.0.0 of 23. September 2002.

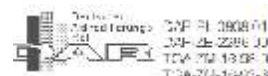
**Contents**  
This test report includes 6 pages  
1 Test specimen  
2 Test procedure  
3 Test results  
Data sheet (1 page)

ift Rosenheim  
23. September 2002  
*[Signature]*  
Dr. Helmut Eberhard  
Director

*[Signature]*  
I. A. Bend 3dB  
Institute of acoustic laboratory

Thessaloniki-Kilkis  
26th km national road  
61100 Thessaloniki-Kilkis

Experimental Research  
26th km national road  
61100 Thessaloniki-Kilkis  
Institute of acoustic laboratory





**2000 Benefit**

**Classification Report  
EnergySaving and Heat Retention**

Test report 403 25652/1e \*)

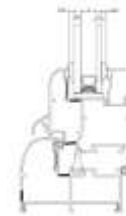


Customer **ELVIAL S.A.**  
**Aluminium Extrusion**  
26th km national road  
  
GR-61100 Thessaloniki-Kilkis

**Basis:**  
EN ISO 12567-1 : 2000-09  
Determination of thermal  
transmittance by hot box  
method – Part 1: Complete  
windows and doors  
Corresponds to the national  
version of DIN EN ISO.

Product	Single-Window
System designation	el-2000 Benefit
External Dimensions (W x H)	800 mm x 1000 mm
(Frame) Material	Aluminium profile
Type of Opening	Turn
Glazing	Insulating glass unit, Single-Window Construction: 5/12/4 mm, Gas filling: Air Coating: no IR reflecting coating spacer aluminium
Specials	*) This test report is a translation of the test report 403 25652/1 dated 22 October 2002.

**Representation**



**Instructions for use**  
This test report may be used to  
classify the thermal transmittance U<sub>w</sub>

**Validity**  
The data and results given relate solely to the described, tested object.  
Testing the thermal transmittance does not allow any statement to be made on further characteristics of the present structure which could define performance and quality.

**Thermal transmittance**



$U_w = 5,0 \text{ W}/(\text{m}^2 \cdot \text{K})$

**Notes on publication**  
The ift Notice "Notes on the use of ift Test Reports" applies.  
The cover sheet can be used as a summary.

**Contents**  
The report contains 6 pages in total  
1 Object  
2 Procedure  
3 Detailed results

ift Rosenheim  
57 November 2002  
  
Dr. Helmut Schwaiblmair  
Director



Dr. Hans-Joerg Hartmann  
Head of the Heat, Insulation & Energy Technology Division

## 7200 Atrium

## Nachweis

Energieeinsparung und Wärmeschutz

Prüfbericht 422 30248/1

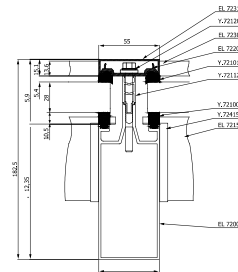


Auftraggeber **ELVIAL S.A.**  
**Aluminium Extrusion**  
 26th km national road  
  
 61100 Thessaloniki-Kilkis  
 Griechenland

## Grundlagen

EN ISO 10077-2 : 2003-10  
 Berechnung des Wärmedurchgangskoeffizienten Numerisches Verfahren für Rahmen  
 Entspricht den nationalen Fassungen DIN EN ISO.

## Darstellung



Produkt	Pfosten für PR-Fassadenkonstruktion
Bezeichnung	EL 7200
Bautiefe	178,5 mm
Ansichtsbreite	55 mm
Material Oberfläche	Aluminium-Verbundprofil pulverbeschichtet durchgehende Stege aus PVC Hart Oberflächenbehandlung im Vertikalverfahren
Art und Material der Dämmzone	Hohlraumoberflächen pressblank
Besonderheiten	-/-

## Verwendungshinweise

Dieser Prüfbericht dient zum Nachweis des Wärmedurchgangskoeffizienten  $U_f$ .

## Gültigkeit

Die genannten Daten und Ergebnisse beziehen sich ausschließlich auf das geprüfte und beschriebene Profilsystem.

Die Ermittlung des Wärmedurchgangskoeffizienten ermöglicht keine Aussage über weitere leistungs- und qualitätsbestimmenden Eigenschaften der vorliegenden Konstruktion.

## Veröffentlichungshinweise

Es gilt das ift-Merkblatt „Bedingungen und Hinweise zur Benutzung von ift-Prüfdokumentationen“.

Das Deckblatt kann als Kurzfassung verwendet werden.

## Inhalt

Der Nachweis umfasst insgesamt 4 Seiten

- 1 Gegenstand
- 2 Durchführung
- 3 Einzelergebnisse

## Wärmedurchgangskoeffizient



$$U_f = 2,0 \text{ W}/(\text{m}^2 \cdot \text{K})$$

Der berechnete Wärmedurchgangskoeffizient berücksichtigt nicht den Einfluss der Verschraubung. Dieser ist nach den anerkannten Regeln für das Profil zu ermitteln und auf das Ergebnis aufzuschlagen.

ift Rosenheim  
 8. September 2005

*Norbert Sack*  
 i. V. Norbert Sack, Dipl.-Phys.  
 Prüfstellenleiter Bauphysik  
 ift Zentrum Glas, Baustoffe & Bauphysik



*J. Hessinger*  
 i. A. Dr. Joachim Hessinger, Dipl.-Phys.  
 Prüflingenieur  
 ift Zentrum Glas, Baustoffe & Bauphysik

**7200 Atrium**

**Classification report**  
Energy efficiency and thermal insulation

Test Report 422 30248/2e  
Translation of test report 422 30248/2

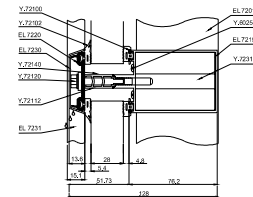


Client **ELVIAL S.A.**  
**Aluminium Extrusion**  
26th km national road  
  
61100 Thessaloniki-Kilkis  
Greece

**Basis**  
EN ISO 10077-2 : 2003-10  
Calculation of thermal transmittance – Numerical method for frames  
Equivalent to the national DIN EN ISO standards.

Product	Transoms for stick construction
Designation	EL 7200
Installation depth	128 mm
Face width	56.5 mm
Material finish	Thermal break aluminium profile, powder coated
Type and material of thermal break	Continuous ribs made of rigid PVC Surface treatment – Vertical application Finish of cavities – plate finish
Special features	-/-

**Representation**



**Instructions for use**

The present test report serves to demonstrate the thermal transmittance  $U_f$ .

**Validity**

The data and results mentioned refer solely to the tested and described profile system.

Testing for thermal transmittance does not allow any statement to be made on further characteristics of the present structure regarding performance and quality.

**Publishing notes**

The ift-Guidance Sheet 'Guidance on the conditions and requirements of using the ift-test reports' is applicable. The cover sheet can be used as abstract.

**Contents**

The test report comprises a total of 4 pages.

- 1 Object
- 2 Procedure
- 3 Detailed results

**Thermal transmittance**



$U_f = 1.9 \text{ W}/(\text{m}^2 \cdot \text{K})$

The calculated thermal transmittance does not include the effect of the screw connection. The latter must be determined according to the acknowledged rules for the profile and added to the result.



ift Rosenheim  
2 December 2005

*Norbert Sack*  
pp. Norbert Sack, Dipl.-Phys.  
Head of Testing Building Physics  
ift Centre Glass, Building Materials & Building Physics

*J. Hessinger*  
pp. Dr. Joachim Hessinger, Dipl.-Phys.  
Test engineer  
ift Centre Glass, Building Materials & Building Physics



## 7200 Atrium

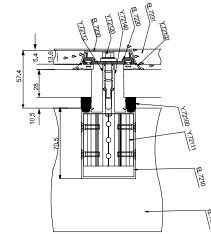
**Nachweis**  
Energieeinsparung und Wärmeschutz  
Prüfbericht 422 30248/3



Auftraggeber **ELVIAL S.A.**  
**Aluminium Extrusion**  
26th km national road  
61100 Thessaloniki-Kilkis  
Griechenland

**Grundlagen**

EN ISO 10077-2 : 2003-10  
Berechnung des Wärmedurchgangskoeffizienten Numerisches Verfahren für Rahmen  
Entspricht den nationalen Fassungen DIN EN ISO.

**Darstellung**

Produkt	Sparren für PR-Fassadenkonstruktion
Bezeichnung	EL 7200
Bautiefe	128 mm
Ansichtsbreite	56,5 mm
Material Oberfläche	Aluminium-Verbundprofil pulverbeschichtet durchgehende Stege aus PVC Hart Oberflächenbehandlung im Vertikalverfahren Hohlraumoberflächen pressblank
Art und Material der Dämmzone	
Besonderheiten	-/-

**Verwendungshinweise**

Dieser Prüfbericht dient zum Nachweis des Wärmedurchgangskoeffizienten  $U_f$ .

**Gültigkeit**

Die genannten Daten und Ergebnisse beziehen sich ausschließlich auf das geprüfte und beschriebene Profilsystem.

Die Ermittlung des Wärmedurchgangskoeffizienten ermöglicht keine Aussage über weitere leistungs- und qualitätsbestimmenden Eigenschaften der vorliegenden Konstruktion.

**Veröffentlichungshinweise**

Es gilt das ift-Merkblatt „Bedingungen und Hinweise zur Benutzung von ift-Prüfdokumentationen“.

Das Deckblatt kann als Kurzfassung verwendet werden.

**Inhalt**

Der Nachweis umfasst insgesamt 4 Seiten

- 1 Gegenstand
- 2 Durchführung
- 3 Einzelergebnisse

**Wärmedurchgangskoeffizient**

$$U_f = 2,0 \text{ W/(m}^2 \cdot \text{K)}$$

Der berechnete Wärmedurchgangskoeffizient berücksichtigt nicht den Einfluss der Verschraubung. Dieser ist nach den anerkannten Regeln für das Profil zu ermitteln und auf das Ergebnis aufzuschlagen.



ift Rosenheim  
8. September 2005

*Norbert Sack*

i. V. Norbert Sack, Dipl.-Phys.  
Prüfstellenleiter Bauphysik  
ift Zentrum Glas, Baustoffe & Bauphysik

*J. Hessinger*

i. A. Dr. Joachim Hessinger, Dipl.-Phys.  
Prüfingenieur  
ift Zentrum Glas, Baustoffe & Bauphysik

## Υαλοπέτασμα - Curtain Wall

ΑΡΙΣΤΟΤΕΛΕΙΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΕΣΣΑΛΟΝΙΚΗΣ ΠΟΛΥΤΕΧΝΙΚΗ ΣΧΟΛΗ

ΤΜΗΜΑ ΠΟΛΙΤΙΚΩΝ ΜΗΧΑΝΙΚΩΝ

### ΠΙΣΤΟΠΟΙΗΤΙΚΟ ΑΝΤΟΧΗΣ ΤΩΝ ΔΟΚΩΝ ΑΛΟΥΜΙΝΙΟΥ ELV\_S (ΔΙΑΤΟΜΗΣ 58x70 mm) ΤΗΣ ΕΤΑΙΡΕΙΑΣ ELVIAL Α.Ε.

ΣΤΑ ΠΛΑΙΣΙΑ ΤΟΥ ΕΡΕΥΝΗΤΙΚΟΥ ΠΡΟΓΡΑΜΜΑΤΟΣ ΤΗΣ ΕΠΙΤΡΟΠΗΣ ΕΡΕΥΝΩΝ ΤΟΥ ΑΡΙΣΤΟΤΕΛΕΙΟΥ ΠΑΝΕΠΙΣΤΗΜΙΟΥ ΘΕΣΣΑΛΟΝΙΚΗΣ ΜΕ ΑΡΙΘΜΟ 20397 ΚΑΙ ΤΙΤΛΟ «ΜΕΤΡΗΣΕΙΣ ΕΡΓΑΣΤΗΡΙΟΥ ΜΕΤΑΛΛΙΚΩΝ ΚΑΤΑΣΚΕΥΩΝ Α.Π.Θ.»  
Επιστημονικός Υπεύθυνος: Καθηγητής Dr.-Ing. X. Κ. Μπανιωτόπουλος

2/37455

μ μ  
16.9.2002



ΕΡΓΑΣΤΗΡΙΟ ΜΕΤΑΛΛΙΚΩΝ ΚΑΤΑΣΚΕΥΩΝ  
ΤΟΜΕΑΣ ΕΠΙΣΤΗΜΗΣ ΚΑΙ ΤΕΧΝΟΛΟΓΙΑΣ ΤΩΝ ΚΑΤΑΣΚΕΥΩΝ

## Υαλοπέτασμα - Curtain Wall



ΕΡΓΑΣΤΗΡΙΟ ΜΕΤΑΛΛΙΚΩΝ ΚΑΤΑΣΚΕΥΩΝ  
ΤΜΗΜΑΤΟΣ ΠΟΛΙΤΙΚΩΝ ΜΗΧΑΝΙΚΩΝ  
ΤΟΥ ΑΡΙΣΤΟΤΕΛΕΙΟΥ ΠΑΝΕΠΙΣΤΗΜΙΟΥ ΘΕΣΣΑΛΟΝΙΚΗΣ

Θεσσαλονίκη 9-12-2002

### ΠΙΣΤΟΠΟΙΗΤΙΚΟ ΑΝΤΟΧΗΣ ΥΑΙΚΟΥ

Η δοκιμή αφορά σε δοκό αλουμινίου διατομής εξωτερικών διαστάσεων ύψους 58 mm και πλάτους 70 mm ( εικ.1) της εταιρείας ELVIAL A.E.

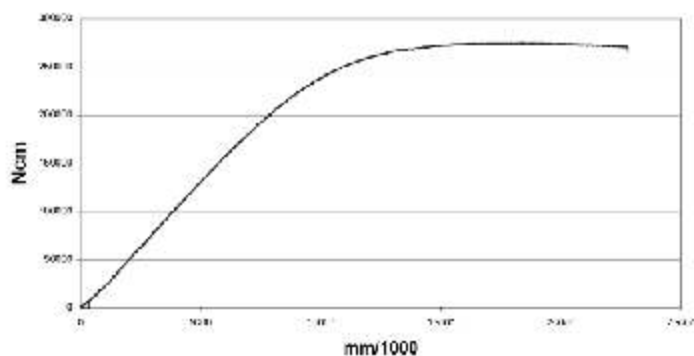
Η δοκιμασσία αντοχής έγινε για διάταξη αμφιεπίστου δοκού ανοίγματος 90 cm με μοναχικό κατακόρυφο φορτίο στο μέσο του ανοίγματος προκειμένου να προκύψει διάγραμμα που να συναρτά την αναπτυσσόμενη ροπή στο μέσο του ανοίγματος με την βύθιση στο σημείο εφαρμογής της δύναμης.



Εικόνα 1. Διατομή αλουμινίου

Έγιναν τρεις δοκιμές στο Εργαστήριο Μεταλλικών Κατασκευών του Α.Π.Θ. σε απολύτως όμοια δοκίμια κάτω από τις ίδιες συνθήκες φόρτισης. Ο μέσος όρος των αποτελεσμάτων φαίνεται στο διάγραμμα που ακολουθεί και συνδέει την ροπή στο μέσο του ανοίγματος αμφιεπίστου δοκού ανοίγματος 90 εκατοστών του μέτρου, με την βύθιση της δοκού στο ίδιο σημείο σε χιλιοστά του χιλιοστομέτρου

### Διάγραμμα ροπών ELV\_S



Οι υπεύθυνοι των δοκιμών

Μ. Ζυγομαλάς  
Δρ. Πολ. Μηχανικός

Χ. Μπανιωτόπουλος  
Καθηγητής

Υαλοπέτασμα - Curtain Wall

ΑΡΙΣΤΟΤΕΛΕΙΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΕΣΣΑΛΟΝΙΚΗΣ ΠΟΛΥΤΕΧΝΙΚΗ ΣΧΟΛΗ

ΤΜΗΜΑ ΠΟΛΙΤΙΚΩΝ ΜΗΧΑΝΙΚΩΝ

**ΠΙΣΤΟΠΟΙΗΤΙΚΟ**  
**ΑΝΤΟΧΗΣ ΤΩΝ ΔΟΚΩΝ ΑΛΟΥΜΙΝΙΟΥ ELV\_L**  
**(ΔΙΑΤΟΜΗΣ 70x119 mm) ΤΗΣ ΕΤΑΙΡΕΙΑΣ ELVIAL Α.Ε.**

ΣΤΑ ΠΛΑΙΣΙΑ ΤΟΥ ΕΡΕΥΝΗΤΙΚΟΥ ΠΡΟΓΡΑΜΜΑΤΟΣ ΤΗΣ ΕΠΙΤΡΟΠΗΣ ΕΡΕΥΝΩΝ ΤΟΥ ΑΡΙΣΤΟΤΕΛΕΙΟΥ ΠΑΝΕΠΙΣΤΗΜΙΟΥ ΘΕΣΣΑΛΟΝΙΚΗΣ ΜΕ ΑΡΙΘΜΟ 20397 ΚΑΙ ΤΙΤΛΟ «ΜΕΤΡΗΣΕΙΣ ΕΡΓΑΣΤΗΡΙΟΥ ΜΕΤΑΛΛΙΚΩΝ ΚΑΤΑΣΚΕΥΩΝ Α.Π.Θ.»  
Επιστημονικός Υπεύθυνος: Καθηγητής Dr.-Ing. X. K. Μπανιστόπουλος

Απόφαση  
ΕΕ 2/37455

Ημερομηνία  
16.9.2002



ΕΡΓΑΣΤΗΡΙΟ ΜΕΤΑΛΛΙΚΩΝ ΚΑΤΑΣΚΕΥΩΝ  
ΤΟΜΕΑΣ ΕΠΙΣΤΗΜΗΣ ΚΑΙ ΤΕΧΝΟΛΟΓΙΑΣ ΤΩΝ ΚΑΤΑΣΚΕΥΩΝ

**Υαλοπέτασμα - Curtain Wall**



ΕΡΓΑΣΤΗΡΙΟ ΜΕΤΑΛΛΙΚΩΝ ΚΑΤΑΣΚΕΥΩΝ  
ΤΜΗΜΑΤΟΣ ΠΟΛΙΤΙΚΩΝ ΜΗΧΑΝΙΚΩΝ  
ΤΟΥ ΑΡΙΣΤΟΤΕΛΕΙΟΥ ΠΑΝΕΠΙΣΤΗΜΙΟΥ ΘΕΣΣΑΛΟΝΙΚΗΣ

Θεσσαλονίκη 9-12-2002

**ΠΙΣΤΟΠΟΙΗΤΙΚΟ ΑΝΤΟΧΗΣ ΥΛΙΚΟΥ**

Η δοκιμή αφορά δοκό αλουμινίου της εταιρίας ELVIAL A.E. με διατομή διαστάσεων (ύψους 119 mm προς πλάτος 70 mm (εικ. 1).

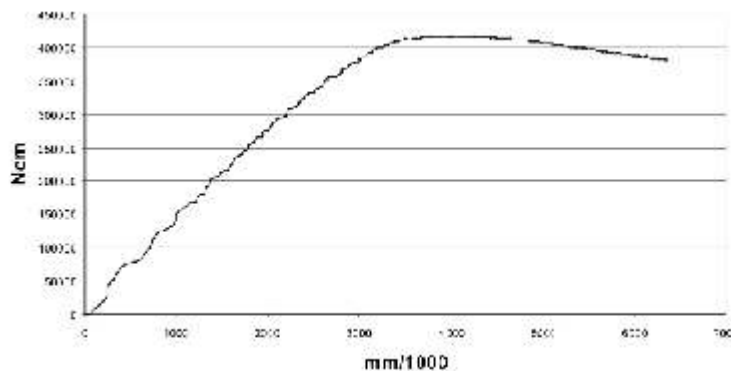
Η δοκιμασία της αντοχής έγινε για διάταξη αμφιερέιστου δοκού ανοίγματος 90 cm με μοναχικό κατακόρυφο φορτίο στο μέσο του ανοίγματος με στόχο να προκύψει το διάγραμμα που συναρτά την αναπτυσσόμενη ροπή στο μέσο του ανοίγματος με την βύθιση στο σημείο εφαρμογής της δύναμης.



Εικόνα 1. Διατομή αλουμινίου

Στο Εργαστήριο Μεταλλικών Κατασκευών του Α.Π.Θ. εκτελέστηκαν τρεις δοκιμές σε όμοια δοκίμια υπό τις ίδιες συνθήκες φόρτισης. Ο μέσος όρος των αποτελεσμάτων παρουσιάζεται στο διάγραμμα που ακολουθεί και συνδέει την ροπή στο μέσο του ανοίγματος αμφιερέιστου δοκού ανοίγματος 90 εκατοστών του μέτρου, με την βύθιση της δοκού στο ίδιο σημείο σε χιλιοστά του χιλιοστομέτρου.

**Διάγραμμα ροπών ELV\_S**



Οι υπεύθυνοι των δοκιμών

<p>Μ. Ζυγομαλάς Δρ. Πολ. Μηχανικός</p>		<p>Χ. Μπανιωτόπουλος Καθηγητής</p>
--	--	--



Система добровольной сертификации в строительстве в Российской Федерации  
**“РОССТРОЙСЕРТИФИКАЦИЯ”**

Создана в соответствии с приказом Рострой России от 19.04.03 № 135,  
 зарегистрирована Госстандартом России 22.05.03 (Per. № РОСС RU B081 04СР00)



## СЕРТИФИКАТ СООТВЕТСТВИЯ

№ 001846

СЕРТИФИКАТ № PCC GR.СЛ05.Н00105

СРОК ДЕЙСТВИЯ: с 30.11.2005 по 30.11.2008

ПРОДУКЦИЯ: Профили прессованные из алюминиевых сплавов  
 для светопрозрачных ограждающих конструкций

КОД ОКП  
52 7522

НАЗНАЧЕНИЕ - Для изготовления светопрозрачных ограждающих конструкций

ОБЛАСТЬ И УСЛОВИЯ ПРИМЕНЕНИЯ - см приложения № 1-3 к настоящему сертификату

СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ НОРМАТИВНЫХ ДОКУМЕНТОВ  
 ГОСТ 22233-2001 п.п. 4.6, 5.1-5.3, п.п. 6, 7

КОД ТН КЭД  
7604 21 000 0

**ИЗГОТОВИТЕЛЬ**

ELVIAL ALUMINIUM EXTRUSION S.A.

Греция, 25th km National Road Thessaloniki-Kilkis 61 100 P.O. Box 79

т. ++30-234-10-64484, адрес пр-ва тот же

**СЕРТИФИКАТ ВЫДАН**

ELVIAL Aluminium extrusion S.A.

**ПА ОСНОВАНИЕ:**

Протоколов сертификационных испытаний № 12В/1 - 12В/3 от 28.11.2005 г.  
 ИЦ "АТ Спецстройиспытания" г. Москва № РОСС RU 9001.21СЛ43 от 19.04.2004 года;  
 Санитарно-эпидемиологического заключения № 23.КК.02.570.П.015037.12.04  
 от 24.12.2004 года до 20.09.2007 г. ФГУ "ЦГСЭН в Краснодарском крае";  
 Акта проверки производства и показателей качества профилей прессованных  
 из алюминиевых сплавов, выпускаемые ELVIAL Aluminium extrusion S.A.

**ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ**

Сертификация по схеме За

**ОРГАН ПО СЕРТИФИКАЦИИ**

ОС "Краснодарстройсертификация" № PCC RU.03.11СЛ05 от 01.03.2005 г.  
 Россия, 350001, г. Краснодар, Воронежский проезд, 5, т. (861)233-75-17



ПРОВЕДИТЕЛЬ ОРГАНА

А.А. Галаган

ЭКС-ЦЕРТ

Г.Я. Якубова

Россия, 119991, ГСП, г. Москва, ул. Строителей, д.8, корп.2, тел.(095) 991-30-91

**СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р  
ГОССТАНДАРТ РОССИИ**

**ГОССТРОЙ РОССИИ №0815019 \***  
**ПРИЛОЖЕНИЕ**

К сертификату соответствия № РОСС GR.СЛ05.Н00174 от 30.11.2005

Перечень конкретной продукции, на которую распространяется  
действие сертификата соответствия

код ОК ВДС (СРП)	Наименование и обозначение продукции, ее изготовитель	Обозначение документации, по которой выпускается продукция
код ТН ВЭД СНГ		
52 7522 7604 21 000 0	Профили прессованные из алюминиевых сплавов для светопрозрачных ограждающих конструкций системы. холодная группа EL-2000, EL-2100, EL-2300, EL-3100, EL-3300, EL-3500, EL-4300, EL-4500, EL-5400, EL-6100, EL-6300, EL-7500, EL-9000, EL-34 теплая группа EL-2200, EL-2400, EL-4200, EL-4400, EL-4600, EL-5000, EL-5200, EL-5500, EL-5800, EL-5700, EL-6600, EL-6800 витражная группа EL-7000, EL-7200	

Изготовитель:  
ELVIAL Aluminium Extrusion S.A.  
Греция, 25th km National Road Thessaloniki-Kilkis 61100 P.O. Box 79



М.П.

Руководитель органа

Эксперт

*[Handwritten signature]*  
\_\_\_\_\_  
*[Handwritten signature]*  
\_\_\_\_\_

А.А. Галаган

М.П.С.С.С.С.С.С.

Г.Я. Якубова

М.П.С.С.С.С.С.С.

СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р  
ГОССТАНДАРТ РОССИИ



**СЕРТИФИКАТ СООТВЕТСТВИЯ**

№ РОСС GR.СЛ05.Н00174

Срок действия с 30.11.2005 по 30.11.2008

0435100

**ОРГАН ПО СЕРТИФИКАЦИИ**

№ РОСС RU.9001.11СЛ05 от 11.12.2003

ОС "Краснодарстройсертификация"

Россия, 350001 г. Краснодар, Воронежский проезд, 5-т. (861)233-75-17

**ПРОДУКЦИЯ**

Профили прессованные из алюминиевых сплавов для  
светопрозрачных ограждающих конструкций

код ОК 005 (ОКП):

52 7522

Серийный выпуск  
см. Приложение 1

**СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ НОРМАТИВНЫХ ДОКУМЕНТОВ**

ГОСТ 22233-2001 п.п. 4,6, 5.1-5.3, р.р. 6, 7

код ТТ ВЭД:

7604 21 000 0

**ИЗГОТОВИТЕЛЬ**

ELVIAL ALUMINIUM EXTRUSION S.A.

25th Km National Road Thessaloniki-Kilkis 61 100 P.O. Box 79 Греция

т.п. 234-10-84484, адрес пр-ва тот же

**СЕРТИФИКАТ ВЫДАН**

ELVIAL ALUMINIUM EXTRUSION S.A.

**НА ОСНОВАНИИ**

Протоколов сертификационных испытаний №№ 12И/1 - 12И/3 от 28.11.2005 года

ИЦ "АТ Спецстройиспытания" г. Москва № РОСС RU.9001.21СЛ43 от 19.04.2004 года;

Санитарно-эпидемиологического заключения № 23.КК.02.570.П.015037 12.04

от 24.12.2004 г. до 20.09.2007 г. ФГУ "ЦГСЭН в Краснодарском крае";

Акта проверки производства и показателей качества профилей прессованных  
из алюминиевых сплавов, выпускаемые ELVIAL S.A.

**ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ**

Схема 3а

Сертификат ТУ CERT ISO 9001:2000 № 78 100 3506 от 2004-11-25

Приложения №№ 2-4 к настоящему сертификату по одному листу, заверенные печатью



Руководитель органа

А.А. Галаган

Эксперт

Г.Я. Якубова

Сертификат не применяется при обязательной сертификации



Система добровольной сертификации в строительстве в Российской Федерации  
**«РОССТРОЙСЕРТИФИКАЦИЯ»**

Создана в соответствии с приказом Минстроя России от 19.04.03 № 135,  
 зарегистрирована Госстандартом России 22.05.03 (Рег. № РОСС RU.В081.04СР00)



## РАЗРЕШЕНИЕ

на применение Знака соответствия Системы

№ 001518

РАЗРЕШЕНИЕ № Н00105

СРОК ДЕЙСТВИЯ с 30.11.2005 по 30.11.2008 г.

РАЗРЕШЕНИЕ ВЫДАНО ELVIAL ALUMINIUM EXTRUSION S.A.

ЮРИДИЧЕСКИЙ АДРЕС Греция, 25th km National Road Thessaloniki-Kilkis  
 61 100 P.O. Box 79

ТЕЛЕФОН ++302341064484 ФАКС ++302341064173 E-MAIL: exports@elvial.gr

ВЫДАНО НА ОСНОВАНИИ PCC GR.СЛ05.Н00105

### УСЛОВИЯ ПРИМЕНЕНИЯ ЗНАКА СООТВЕТСТВИЯ

- Знаком соответствия маркируется документ о качестве и товаросопроводительная документация
- Требования к изображению знака соответствия - см. на обороте

### ОРГАН ЦЕРТИФИКАЦИИ


ОС "Краснодарстройсертификация" № PCC RU.03.11СЛ05 от 01.03.2005  
 Россия, 350001, г. Краснодар, Воронежский проезд, 6 т. (861) 233-75-17



ПОДПИСЬ РУКОВОДИТЕЛЯ ОРГАНА

А.А. Галаган

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 ДЕРЖАВНИЙ КОМПІТЕТ УКРАЇНИ З ПИТАНЬ ТЕХНІЧНОГО РЕГУЛЮВАННЯ  
 НАСНОВОЮ ЧАСТИНОЮ ВОЛІТВОЇ  
 ДЕРЖАВНА СИСТЕМА СЕРТИФІКАЦІЇ УКРАЇНИ

№ 372117 Серія 016

## СЕРТИФІКАТ ВІДПОВІДНОСТІ

Запис в Реєстрі № UA 1.090.72850-05  
 Зареєстрована в Реєстрі

Термін дії з 15 вересня 2005 р. до 12 вересня 2007 р.  
 Сила дієвості

Продукція Профілі пресовані з алюмінієвих сплавів (див. додаток)  
 Група 01 7616, 7610  
по 747 401 68 962  
— ДІ ВСТР 617

Відповідає стандартам ДСТУ Б В 2 8-3-95 "Профілі пресовані з алюмінієвих сплавів для  
 будівельних конструкцій. Загальні технічні умови"  
 Серія стандартів ДСТУ Б В 2 8-3-95 п.п. 4.2.2 - 4.2.10, 5.3, 5.4, 5.6.

Виробник продукції Фірма "Elvial s.a."  
 Адреса виробника продукції 25th New National Road Thessaloniki - Kilkis 61100 P.O. Box 79, Greece


Сертифікат видав Фірма "Elvial s.a."  
 Адреса видавця сертифіката 25th New National Road Thessaloniki - Kilkis 61100 P.O. Box 79, Greece

Додаткова інформація Профілі пресовані з алюмінієвих сплавів (див. додаток), що  
 виготовляються серійно та ввозяться в Україну з 13.09.2005 р. до  
 12.09.2007 р. Контроль відповідності сертифікованій продукції  
 вимогам нормативних документів здійснюється шляхом технічного  
 нагляду за сертифікованою продукцією.


Сертифікат видав орган з сертифікації ДП "Центр з Сертифікації будівельних матеріалів,  
 виробів та конструкцій "СЕРПРОСИВБУДІНХІЖІ"  
 01601, м. Київ, вул. Турбінівська, 38, атестат акредитації № UA 4.001.090 від 12.01.2001 р.,  
 тел. (044) 486-43-69.

На основі ДП "Випробувальний центр будівельних конструкцій" КНУБА, 03057, м. Київ,  
 37, Новотрафолетський пр., 31, атестат акредитації № UA 6.001 EE.455 від  
 14.07.2002р. Протокол сертифікаційних випробувань № 240-05 від 12.09.2005р.  
 Акт забезпечення виробництва від 12.09.2005 р.

Керівник органу з сертифікації М.П.  
 Адреса органу з сертифікації

  
 підпис А. А. Сафаров  
 головний президент

Дієльний керівник органу з сертифікації  
 м. Київ, вул. Турбінівська, 38, тел. (044) 486-43-69

  
 ДІЯСАВНИЙ КОМПЛЕКТ ЗАДАНИЙ З ВИСОКИМ ТЕХНІЧНИМ РЕГУЛОВАНИМ  
 ТА СПОЖИВНОЮ ПОЛІТИКОЮ  
 ДЕРЖАВНОЇ СИСТЕМИ СЕРТИФІКАЦІЇ УКРАЇНИ

№ 902364 Серія Г Д

## ДОДАТОК

до сертифіката відповідності / свідоцтва про визнання  
 Приложенье к сертификату соответствия / свидетельства о признании

№ ДА 1 090 72850-05  
 від 15 вересня 2005 р.

**Перелік марок профілів пресованих з алюмінієвих сплавів,  
 що випускаються підприємством "Elvial с.а." (Третія)**

**1. Профілі пресовані з алюмінієвих сплавів марок:**

EL-2000, EL-2100, EL-2300, EL-3100, EL-3300, EL-3500, EL-4300,  
 EL-4500, EL-5400, EL-6100, EL-6300, EL-7500, EL-9000, EL-34.


**2. Профілі пресовані з алюмінієвих сплавів з термовставками марок:**


EL-2200, EL-2400, EL-4200, EL-4400, EL-4600, EL-5000, EL-5200,  
 EL-5500, EL-5600, EL-5700, EL-6600.

**3. Профілі пресовані з алюмінієвих сплавів вітражні марок:**


EL-7000, EL-7200.

Усього 27 найменувань.



  
 підпис
 

 А. А. Сафаров  
 ініціал, прізвище



**elviaL** 

A D V A N C E D   A L U M I N I U M   S Y S T E M S

**Πιστοποιητικά - Certificate**