



THE STANDARDS INSTITUTION OF ISRAEL

TEST REPORT No. 9413215423

Details of order:

The test was ordered by : S.H.L. – Alubin Ltd.
Address : 36 Yosef Levy St., Kiryat Bialik 0027112, ISRAEL
Date of order : 17.08.2014
The sample was selected by : a customer representative and received at SII on 10.09.2014

Description of sample

Window-shutter assembly (monobloc) consisting of an aluminium sash sliding on sash type window, Model AD-90 (D-05), and a roller shutter with an electric mechanism and rigid polyurethane-filled aluminium slats, as defined by the customer.
Assembly dimensions: width – 1700 mm, height – 2483 mm (box height – 300 mm).
A detailed description of the assembly is retained at SII.

Nature of test:


At the request of the customer, partial testing according to the test methods indicated in the following clauses:
1. 303 – Performance of the window, in Israeli Standard SI 1068 Part 1 "Windows: General requirements and test methods" of October 1994, amended in May 2001.
2. 4.3.2.1 – Resistance to penetration of air through the shutter and 4.3.4 – Resistance to peak load in Israeli Standard SI 1509 Part 2 "Shutters: Roller shutters" of December 1997.

This document contains four pages and may be used only in full. The test results in this document refer only to the item tested.

Summary
For details, see pages 2-4.

The original Test Certificate was signed by :

Name : Dudu Varum
Position : Head of Windows and Protective Systems Section


Benjamin Nochi
Wood, Windows and Protective Systems Branch
on : 2014.11.13
year month day

I confirm that this is a true translation of the Hebrew original. Only the original test certificate is authentic.

Signature
Name : Benjamin Nochi Position : Wood, Windows and Protective Systems Branch

Date : 2014.11.13
year month day

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for marking the product with the Standards Mark

1. Test results to the requirements in SI 1068 Part 1:

| Clause no. in SI 1068 Part 1 | Test designation | Test conditions | Test results | Standard requirements |
|------------------------------|--|-------------------------------------|--|---|
| 303.2 | Air permeability (window-shutter assembly) Designation D | Air pressure - 300 N/m ² | 63 m ³ /hour | 70.6 m ³ /hour maximum |
| | Air permeability (window-shutter assembly) Designation E | Air pressure - 400 N/m ² | 74 m ³ /hour | 70.6 m ³ /hour maximum |
| 303.3 | Water tightness (window) Designation A | Air pressure - 150 N/m ² | After approximately 7 minutes from the start of the test, water penetration was observed on the interior side of the window between the sash and the left door post. | There shall be no signs of water penetration on the interior side of the window and water shall not collect at locations where there is no possibility of drainage. |

A repair was made to the assembly by the customer representative.

Essence of the repair: Spreading a sealant (silicone) between the implant and the door post

Test results after repair:

| Clause no. in SI 1068 Part 1 | Test designation | Test conditions | Test results | Standard requirements |
|------------------------------|--|-------------------------------------|--|---|
| 303.2 | Air permeability (window-shutter assembly) Designation D | Air pressure - 300 N/m ² | 62 m ³ /hour | 70.6 m ³ /hour maximum |
| 303.3 | Water permeability (window) Designation A | Air pressure - 150 N/m ² | There were no signs of water penetration on the interior side of the window and water did not collect at locations where there is no possibility of drainage. | There shall be no signs of water penetration on the interior side of the window and water shall not collect at locations where there is no possibility of drainage. |
| | Water permeability (window) Designation B | Air pressure - 200 N/m ² | There were no signs of water penetration on the interior side of the window and water did not collect at locations where there is no possibility of drainage. | There shall be no signs of water penetration on the interior side of the window and water shall not collect at locations where there is no possibility of drainage. |
| | Water permeability (window) Designation C | Air pressure - 250 N/m ² | After approximately 7 minutes from the start of the test, water penetration was observed on the interior side of the window between the sash and the left door post. | There shall be no signs of water penetration on the interior side of the window and water shall not collect at locations where there is no possibility of drainage. |

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Test results after repair (continued):

| Clause no. in SI 1068 Part 1 | Test designation | Test conditions | Test results | Standard requirements |
|------------------------------|--|--------------------------------------|----------------------------|--------------------------------------|
| 303.4 | Static load resistance on the sash Designation A | Air pressure - 500 N/m ² | Maximum deflection: 3.0 mm | Maximum allowable deflection: 7.0 mm |
| | Static load resistance on the sash Designation B | Air pressure - 840 N/m ² | Maximum deflection: 4.9 mm | Maximum allowable deflection: 7.0 mm |
| | Static load resistance on the sash Designation C | Air pressure - 1050 N/m ² | Maximum deflection: 6.5 mm | Maximum allowable deflection: 7.0 mm |
| | Static load resistance on the sash Designation D | Air pressure - 1260 N/m ² | Maximum deflection: 7.6 mm | Maximum allowable deflection: 7.0 mm |
| 303.4 | Static load resistance on the horizontal divider Designation A | Air pressure - 500 N/m ² | Maximum deflection: 3.3 mm | Maximum allowable deflection: 5.5 mm |
| | Static load resistance on the horizontal divider Designation B | Air pressure - 840 N/m ² | Maximum deflection: 3.4 mm | Maximum allowable deflection: 5.5 mm |
| | Static load resistance on the horizontal divider Designation C | Air pressure - 1050 N/m ² | Maximum deflection: 3.6 mm | Maximum allowable deflection: 5.5 mm |
| | Static load resistance on the horizontal divider Designation D | Air pressure - 1260 N/m ² | Maximum deflection: 3.8 mm | Maximum allowable deflection: 5.5 mm |
| | Static load resistance on the horizontal divider Designation E | Air pressure - 1560 N/m ² | Maximum deflection: 3.9 mm | Maximum allowable deflection: 5.5 mm |

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Test results after repair (continued):

| Clause no. in SI 1068 Part 1 | Test designation | Test conditions | Test results | Standard requirements |
|------------------------------|---|--------------------------------------|--|---|
| 303.4 | Retest of air permeability (after static load resistance test) Designation A (according to clause 303.2) | Air pressure - 150 N/m ² | 61 m ³ /h | 70.6 m ³ /h maximum |
| | Retest of air permeability (after static load resistance test) Designation B (according to clause 303.2) | Air pressure - 200 N/m ² | 74 m ³ /h | 70.6 m ³ /h maximum |
| | Peak load resistance Designation E | Air pressure - 2400 N/m ² | No signs of exterior damage to the window were observed. | There shall be no signs of exterior damage to the window. |

2. Test results to the requirements in SI 1509 Part 2:

| Clause no. | Test designation | Test conditions | Test results | Standard requirements |
|------------|---------------------------------------|--------------------------------------|--|--|
| 4.3.2.1 | Air permeability through the shutter | Air pressure - 60 N/m ² | Window-shutter assembly: 530 m ³ /hour | 2532 m ³ /hour maximum |
| 4.3.4 | Peak load resistance Designation D | Air pressure - 1750 N/m ² | The shutter did not leave the tracks as a result of the test. No signs of exterior damage to the window were observed that prevent the shutter, all its parts, from continued operation and proper functioning. There were no cracks in the shutter. There was no other damage visible from a distance of 1 m from it. | The shutter shall not leave the track as a result of the test. No signs of exterior damage to the window shall be observed that prevent the shutter, all its parts, from continued operation and proper functioning. There shall be no cracks in the shutter. There shall be no other damage visible from a distance of 1 m from it. |

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