

### THE STANDARDS INSTITUTION OF ISRAEL

#### TEST REPORT No. 9413220964

#### 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: 13.11.2014

The sample was selected by : a customer representative and received at SII on 10.11.2014

#### Description of sample

Door-shutter assembly (monobloc) consisting of an aluminium side hinged door including a tilt and turn window (drei kip) with a fixed bottom, Model AD-45 (D-14), and a roller shutter with an electric mechanism and rigid polyurethane-filled aluminium slats, as defined by the customer. Assembly dimensions: width - 1005 mm, height - 2440 mm (box height - 300 mm, fixed height - 1130 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:

 303 - Performance of the door/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 six 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 2-6.

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: 2014.11.14 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: 2014/11/14 year month day

## This document is not approval

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### 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 E	Air pressure - 400 N/m <sup>2</sup>	43.0 m³/hour	75.8 m³/hour maximum
303.3	Water permeability (window) Designation A	Air pressure - 150 N/m <sup>2</sup>	After the start of the test, water penetration was observed from the threshold of the door to the inside of the door, and accumulation of water on the interior side of the main gasket on the window sill.	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: Removal of the rectangular gasket from the window (on the whole perimeter). Removal of the rectangular gasket from the door (on the whole perimeter).

#### 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 E	Air pressure - 400 N/m²	37.0 m³/hour	75.8 m³/hour maximum
303.3	Water permeability (window) Designation A	Air pressure - 150 N/m²	After approximately 5 minutes from the start of the test, water penetration was observed from the threshold of the door to the inside of the door.	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: The rectangular gasket was returned to the door posts only.

Replacement of the one-way draining valve on the windbreakers (a "bath" profile is not used).

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#### 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 E	Air pressure - 400 N/m <sup>2</sup>	29.0 m³/hour	75.8 m³/hour maximum
303.3	Water permeability (window) Designation A	Air pressure - 150 N/m²	At the end of the test, there was accumulation of water on the interior side of the main gasket on the door threshold and on the window sill.	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: Removal of the rectangular gasket from the door posts (that was assembled in the previous test).

#### 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 E	Air pressure - 400 N/m²	20.2 m³/hour	75.8 m³/hour maximum
303.3	Water permeability (window) Designation A	Air pressure - 150 N/m <sup>2</sup>	After approximately 4 minutes from the start of the test, water penetration was observed on the inside of the door on the door threshold and on the window sill.	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: Relocation of the main gasket and two molded corners (only on the door threshold) in the inside channel of the profile.

Three Ø8 mm drainage holes were drilled in the center channel on the exterior side of the main gasket.

Five Ø4 mm drainage holes were drilled in the exterior channel of the door threshold profile.

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#### 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 E	Air pressure - 400 N/m²	62.0 m³/hour	75.8 m³/hour maximum
303.3	Water permeability (window) Designation A	Air pressure - 150 N/m <sup>2</sup>	At the end of the test, there was accumulation of water on the interior side of the main gasket on the door threshold.	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: The rectangular window gasket (exterior) was returned to its location except for the door post gasket.

Adjustment of the locking pins (excenters).

#### 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 E	Air pressure - 400 N/m²	54.0 m³/hour	75.8 m³/hour maximum
303.3	Water permeability (window) Designation A	Air pressure - 150 N/m <sup>2</sup>	At the end of the test, there was accumulation of water on the interior side of the main gasket on the window sill.	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: Removal of rectangular gasket (exterior) from the window sill (remained only on the door posts).

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### 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 E	Air pressure - 400 N/m²	58.0 m³/hour	75.8 m³/hour maximum
303.3	Water permeability (window) Designation A	Air pressure - 150 N/m <sup>2</sup>	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 <sup>2</sup>	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 <sup>2</sup>	After approximately 5 minutes from the start of the test, water penetration was observed from the bottom hinge of the door.	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.
303.4	Static load resistance on the horizontal divider Designation A	Air pressure - 500 N/m <sup>2</sup>	Maximum deflection: 0.56 mm	Maximum allowable deflection: 2.71 mm
	Static load resistance on the horizontal divider Designation B	Air pressure - 840 N/m <sup>2</sup>	Maximum deflection: 0.69 mm	Maximum allowable deflection: 2.71 mm
	Static load resistance on the horizontal divider Designation C	Air pressure - 1050 N/m <sup>2</sup>	Maximum deflection: 0.77 mm	Maximum allowable deflection: 2.71 mm
	Static load resistance on the horizontal divider Designation D	Air pressure - 1260 N/m <sup>2</sup>	Maximum deflection: 0.85 mm	Maximum allowable deflection: 2.71 mm
	Static load resistance on the door Designation A	Air pressure - 500 N/m <sup>2</sup>	Maximum deflection: 2.09 mm	Maximum allowable deflection: 3.9 mm

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#### Test results after repair:

Clause no. in SI 1068 Part 1	Test designation	Test conditions	Test results	Standard requirements
303.4	Static load resistance on the door Designation B	Air pressure - 840 N/m <sup>2</sup>	Maximum deflection: 2.47 mm	Maximum allowable deflection: 3.9 mm
	Static load resistance on the door Designation C	Air pressure - 1050 N/m <sup>2</sup>	Maximum deflection: 2.72 mm	Maximum allowable deflection: 3.9 mm
	Static load resistance on the door Designation D	Air pressure - 1260 N/m <sup>2</sup>	Maximum deflection: 2.91 mm	Maximum allowable deflection: 3.9 mm
303.4	Retest of air permeability (after static load resistance test) Designation E (according to clause 303.2)	Air pressure - 400 N/m <sup>2</sup>	60.4 m <sup>3</sup> /h	75.8 m³/h maximum
	Peak load resistance Designation E	Air pressure - 2400 N/m²	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 <sup>2</sup>	Window-shutter assembly: 450 m³/hour	1470 m³/hour maximum
4.3.4	Peak load resistance Designation E	Air pressure - 2400 N/m <sup>2</sup>	The shutter did not leave the track as a result of the test. No signs of exterior damage to the window were observed that prevent the shutter, all 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 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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