

Test report : L13-30077

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LQF-510-02

IP TEST REPORT

Project No.: L13-30077

Equipment Under Test: CRP BOX 30*40

Model/Type : CB 304013
S/N : 96072501
IP : 54
Dimension : SEE ANNEX

Manufactured by: ARVIN SANAT BASPAR CO.

Applicant: ARVIN SANAT BASPAR CO.

Tested According to: IEC 60529 2013 AND IEC 62208 2011

Issue Date: 18-Feb-2018

No. of pages: 12

Prepared by: Test Engineer

R. Alaei

Verified by: Technical Manager

S. M. Mirfallah

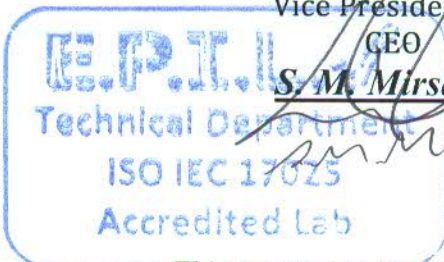
Approved by:

Engineering Deputy of Test and
Inspection

Prof. B. Valhidi

Vice President of
CEO

S. M. Mirsadri



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1. GENERAL INFORMATION

1.1 Product Information

Equipment Under Test	: GRP BOX 30*40
Model/Type	: CB 304013
S/N	: 96072501
Normative document	: IEC 60529 2013 AND IEC 62208 2011

1.2 Client Information

Applicant : ARVIN SANAT BASPAR CO.

1.3 Tests Performed

Marking	passed
IP5X, Test for Protection Against Dust	passed
IP5X, Test for Protection Against Access to Hazardous Parts	passed
IPX4, Test for Protection Against Water	passed
IK10, Test for Protection Against Mechanical Impact	passed

See Page 4 - 7



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2. PERFORMANCE and RESULTS of TESTS

2.1. Marking:

2.1.1 Test data

Location	: E.P.I.L.
Date	: 13-Feb-2018
Engineer of EPIL	: R. Alaei
Normative document	: IEC 60529 Ed2.2 – 2013

2.1.2 Procedure of test

Compliance with The requirements of sub clause 10, IEC 60529 for marking shall be specified in the relevant product standard.

2.1.3 Acceptance conditions of test

Compliance with the requirements of sub clause 10 of IEC 60529 had checked by inspection.

2.1.4 Result of test

Test was done according to IEC 60529, sub clause 10 and it passed the test.

✓ **PASSED**



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2.2 IP5X , Test for Protection Against Dust

2.2.1 Test data

Location	: E.P.I.L.
Date	: 13-Feb-2018
Engineer of EPIL	: R. Alaei
Normative document	: IEC 60529 2013

2.2.2 Ambient conditions

Ambient Temperature	: 19°C
Relative Humidity	: 33 %
Atmospheric Pressure	: 86.5 kPa

2.2.3 Instrument used for the test

Dust Chamber

2.2.4 Procedure of test


The enclosure under test is placed in its normal operating position in dust chamber and the powder circulation pump worked. Talcum powder shall be used. The talcum powder used shall be able to pass through a square-meshed sieve the nominal wire diameter of which is 50 μm and the nominal width of a gap between wires 75 μm . The amount of talcum powder to be used is 2 kg per cubic meter of the test chamber volume. It shall not have been used for more than 20 tests (according to IEC 60529). The duration of the test was 8 h (according to IEC 60529).

2.2.5 Acceptance conditions of test

Ingress of talcum powder is verified by using a watch glass installed at the center of the base of the protected space of the enclosure in order to pick up the talcum powder entering the protected space during the test. After the test, talcum powder shall not form deposits of more than 1 g/m^2 . In practice the weight of the watch glass is measured before and at the end of the test and the difference between both measures is representative of the amount of the talcum powder which has entered the protected space.

2.2.6 Result of test

The test was done according to IEC 60529 and it passed the test.


PASSED
Technical Department
ISO IEC 17025
Accredited Lab

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2.3 IP5X, Test for Protection Against Access to Hazardous Parts

2.3.1 Test data

Location : E.P.I.L.
Date : 13-Feb-2018
Engineer of EPIL : R. Alaei
Normative document : IEC 60529 2013

2.3.2 Ambient conditions

Ambient Temperature : 19 °C
Relative Humidity : 33 %
Atmospheric Pressure : 86.5 kPa

2.3.3 Instrument used for the test

Standard wire 1 – 1.05 mm diameter (table VI - IEC60529).

2.3.4 Procedure of test

The standard probe is pushed against any openings of the enclosure with the force $1\pm 10\%$ N.

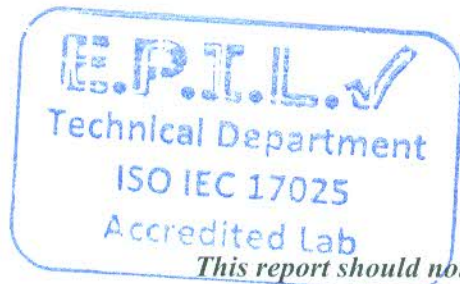
2.3.5 Acceptance conditions of test

Clause 12.3 of IEC 60529. The access probe shall not touch the surface of the protected space.

2.3.6 Result of test

Test was done according to IEC 60529 and it passed the test.

✓ **PASSED**



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2.4 IPX4, Test for Protection Against Water

2.4.1 Test data

Location : E.P.I.L.
Date : 14-Feb-2018
Engineer of EPIL : R. Alaei
Normative document : IEC 60529 Ed2.2 2013

2.4.2 Ambient conditions

Ambient Temperature : 21°C
Relative Humidity : 32%
Atmospheric Pressure : 86.5 kPa

2.4.3 Instrument used for the test

Spray nozzle of water

2.4.4 Procedure of test

The enclosure under test is placed in its normal operating position under the spraying with spray nozzle (According to IEC 60529).

The duration of the test was 1 min/m² at least 5 min (water flow rate: 10 L/min ±5%, according to IEC 60529).

2.4.5 Acceptance conditions of test

After testing the EUT shall be inspected for ingress of water according to conditions that are specified in IEC 60529.

2.4.6 Result of test

Test was done according to IEC 60529 and it passed the test.



PASSED



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2.5 IK10 , Test for Protection Against Mechanical Impact

2.5.1 Test data

Location : E.P.I.L.
Date : 13-Feb-2018
Engineer of EPIL : R. Alaei
Normative document : IEC 62262

2.5.2 Ambient conditions

Ambient Temperature : 19°C
Relative Humidity : 33 %
Atmospheric Pressure : 86.5 kPa

2.5.3 Instrument used for the test

IK 10

2.5.4 Procedure of test

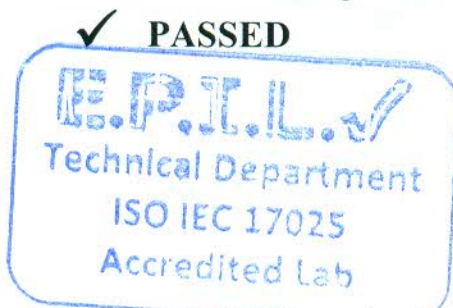
The number of impacts shall be five on each exposed face unless otherwise specified in the relevant product standard. the impacts shall be evenly distributed on the face of the enclosure under test. In no case shall more than three impact be applied in the surroundings of the same point of the enclosure.

2.5.5 Acceptance conditions of test

According to client request, Break the glass and damage after IP test is not allowed.

2.5.6 Result of test

Test was done according to client request and it passed the test.

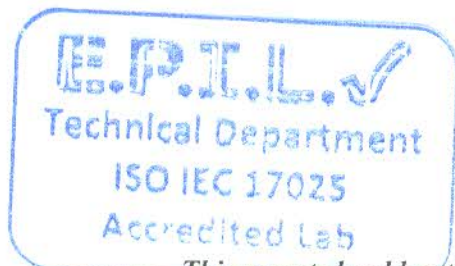


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3. FIGURES:



Figure 1: EUT



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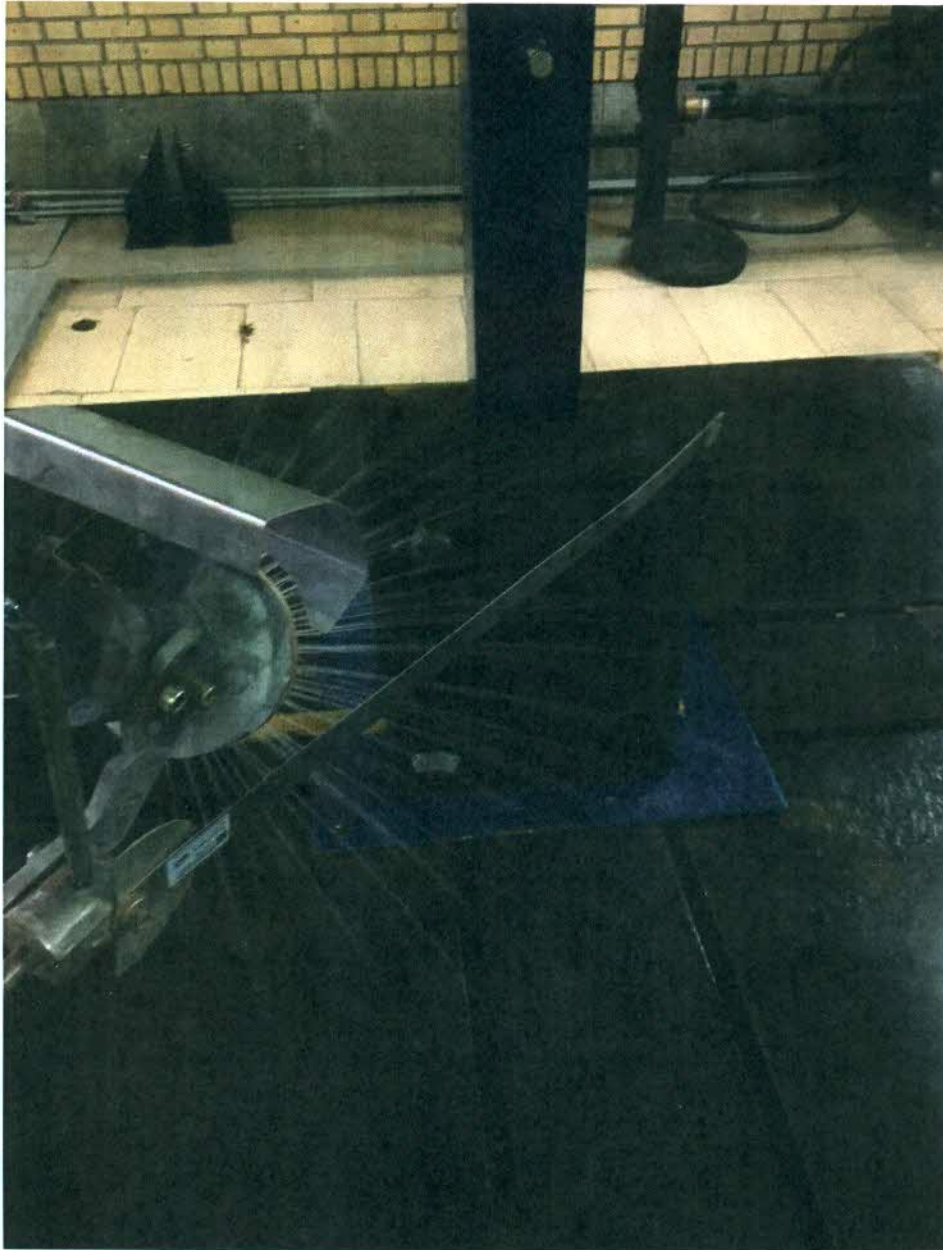


Figure 2: EUT under IPX4



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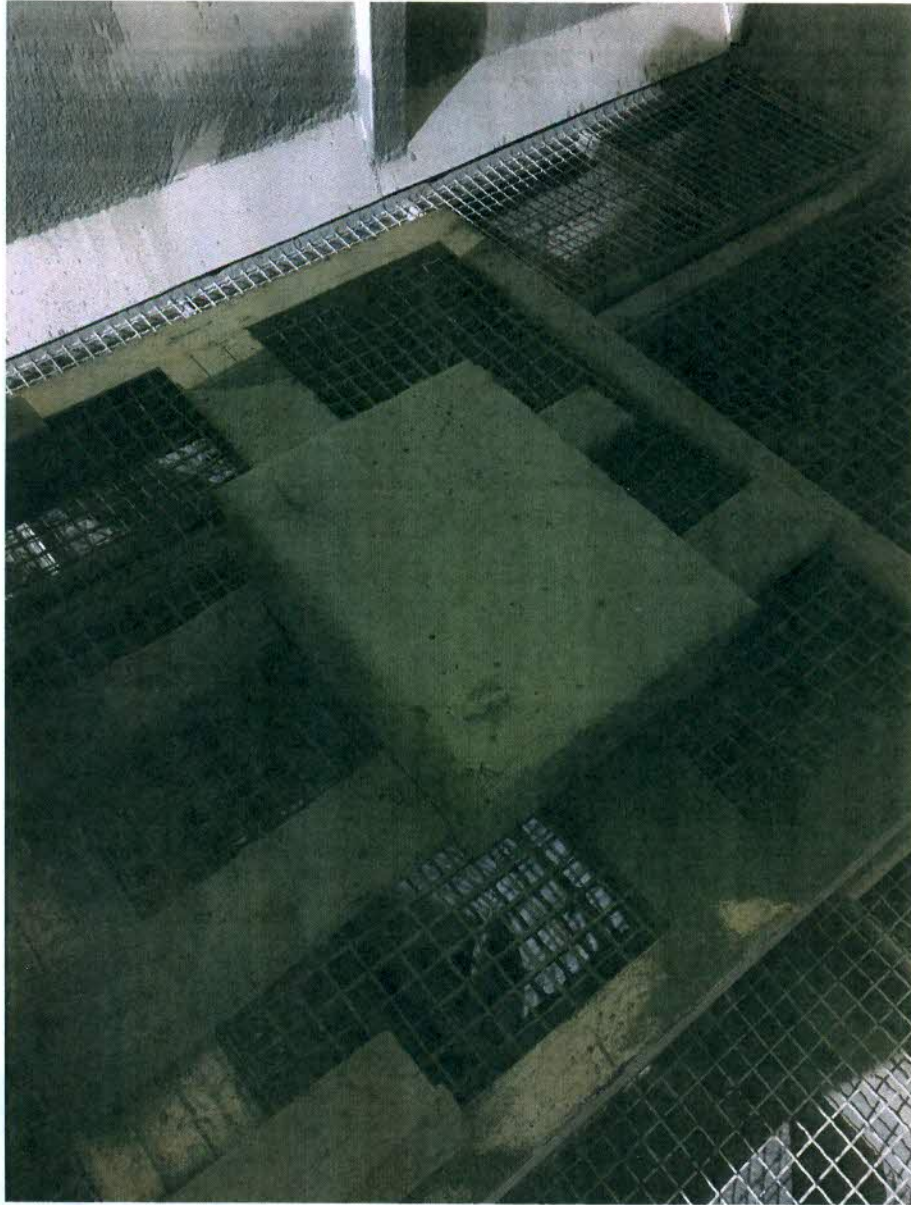
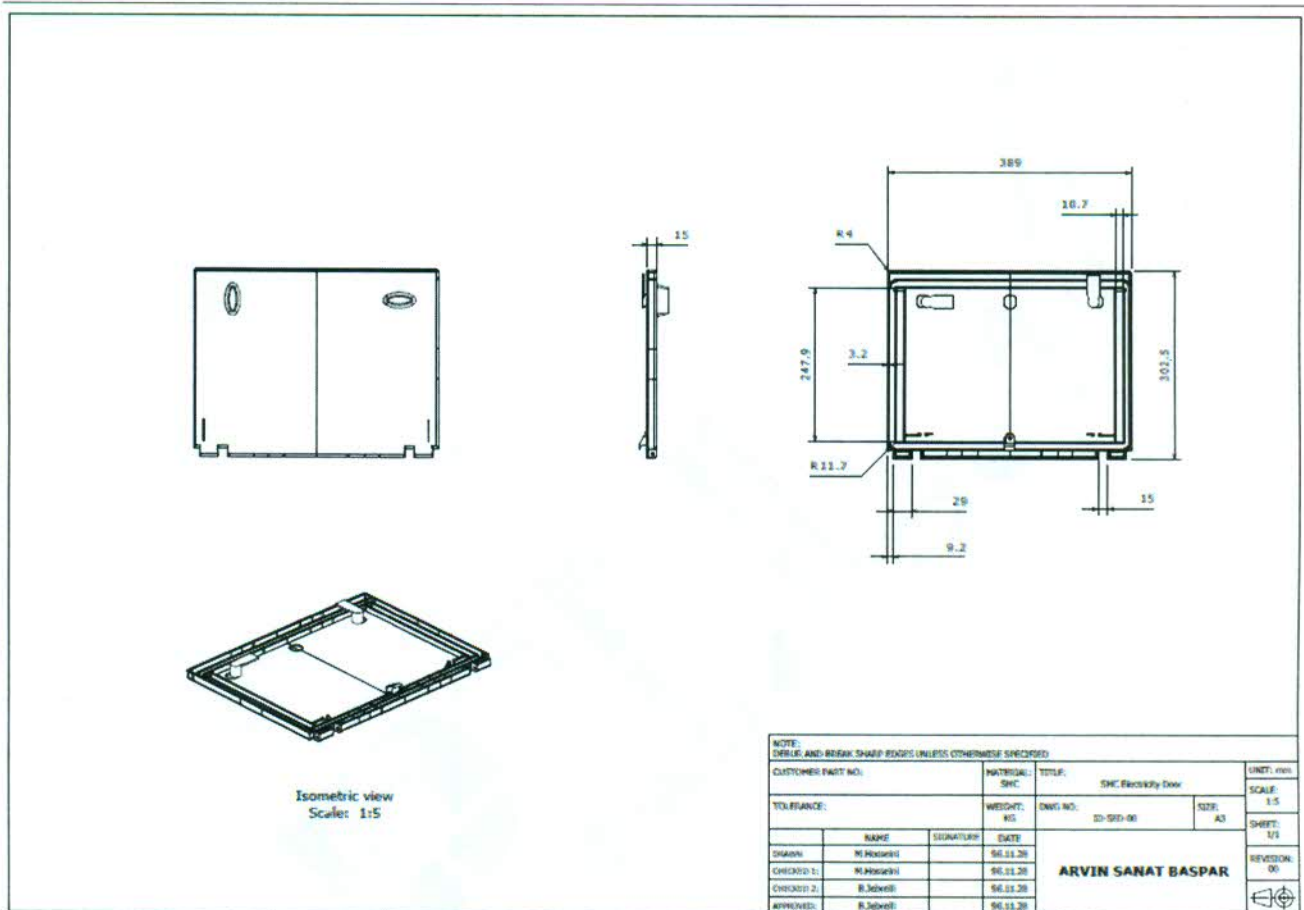


Figure 3: EUT after IP5X



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4. ANNEX:



General view



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