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AN ISO/IEC 17025 ACCREDITED MATERIAL TESTING LAB

UNIT - II, W 361, TTC INDUSTRIAL AREA, MIDC, RABALE, NAVI MUMBAI - 400 701, INDIA.

PH. : 91 (22) 2769 34 83 TELEFAX : 91 (22) 2769 3492

E-MAIL : rabale@elcalabs.com WEB : www.elcalabs.com



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CHEM.T / 296 & MECH.T / 297
ELEC.T / 2293

Test Report for Ingress Protection (IP 66) Test carried out on
Cable Gland

Customer:

Akshar Brass Industries

Plot No: 4027,

GIDC, Phase-III,

Dared, Jamnagar- 361004

Gujarat, India.

Test Report No: E-497, E-498

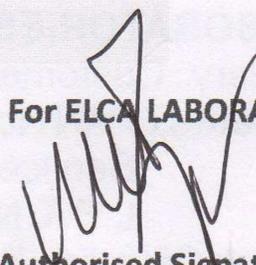
Product: Cable Gland with junction box of size: 125 x 80 x 57 mm

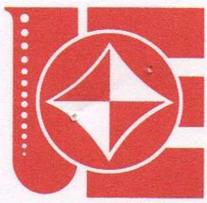
Size: E-497- A2FRC-20S

E-498 – A2FRC-20S16

Date: 2nd July 2015

For ELCA LABORATORIES


Authorised Signatory
N Kalyan / Kartik Iyer
Proprietor / C.E.O.



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Continuation Sheet of Test report No: E-497 to E-498

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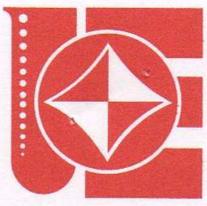
1.0 GENERAL TEST DESCRIPTION

2.0 TEST DATA

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5.0 TEST RESULT OF SAMPLE



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Continuation Sheet of Test report No: E-497 to E-498

1.0 GENERAL TEST DESCRIPTION

This Report presents the result of the Ingress Protection Test performed on Cable Gland submitted by M/s. Akshar Brass Industries. Samples are identified as E-497 to E-498.

Description of the sample: - **Cable Gland with junction box of size: 125 x 80 x 57 mm**

Size: **E-497 – A2FRC-20S**

E-498 –A2FRC-20S16

All tests were carried out as per customer's requirements derived from the following standards.

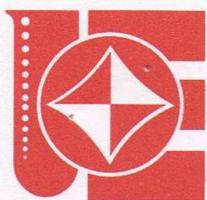
APPLIED STANDARD:-

1. IEC 60529:2013 :- Degrees of Protection provided by enclosures (IP Code)

- a) Dust test-First Characteristic numeral 6 (Category 1) as per Clause 13.4
- b) Water test-Second Characteristic numeral 6 as per Clause 14.2.6

Acceptance conditions:

- a) Dust test :as per Clause 13.6.2
- b) Water test :as per Clause 14.3

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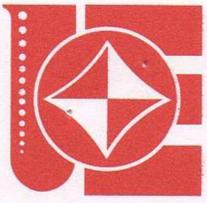
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ELEC.T / 2293Continuation Sheet of Test report No: E-497 to E-498**2.0 TEST DATA**

Test Laboratory	ELCA LABORATORIES , UNIT II, W 361, MIDC, Rabale, Navi Mumbai -400 701, Maharashtra, India.
Test Date	Dust test on 1 st July 2015 Water test on 2 nd July 2015
Tested By	Ms. Harshala Mawale
ELCA ID No.	E-497 to E-498

3.0 ENVIRONMENT CONDITIONS

Tests have been performed in a controlled laboratory environment, where the environmental conditions are maintained within the applicable ranges as follows.

Ambient Temperature	26°C - 29°C
Relative Humidity air	40% - 70%
Air Pressure	86 kPa to 106 kPa (860 mbar to 1060 mbar)

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ELEC.T / 2293Continuation Sheet of Test report No: E-497 to E-498**4.0 TEST CONDITIONS**

The samples were placed in the Dust Chamber at room temperature. The test conditions are as follows:-

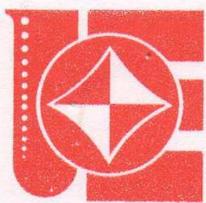
Temperature within exposure zone	25 °C
Exposure Period	2 hours
Start time	02.30 PM on 01.07.2015
End time	04.30 PM on 01.07.2015
Equipment used	ENV-006
IP code	First Characteristic numeral : 6 Category: 1

Type of dust used	Talcum powder
Size of dust	Passed through square meshed sieve of wire diameter 50µm and nominal width of a gap between wires 75 µm
Weight of dust used	3 kg. (2kg.per cubic meter of test chamber)
Chamber volume	1.5 cubic meter

Parameters for Dust test for 6X as per Category 1

Volume of enclosure	570 CC
80 volumes to be drawn through	45600 CC
Extraction rate :40 vol./hr. (in LPM)	22800 (0.38 lpm)
Extraction rate :60 vol./hr. (in LPM)	34200 (0.57 lpm)
If an extraction rate of 40 vol./hours to 60 vol./hours is obtained the test duration:	2 hours (extraction rate is 0.4 lpm)
If less than 40 vol./hours Actual Extraction Rate: (LPM) Time to draw 80 volumes	---
If 20 mbar achieved, test duration:	---

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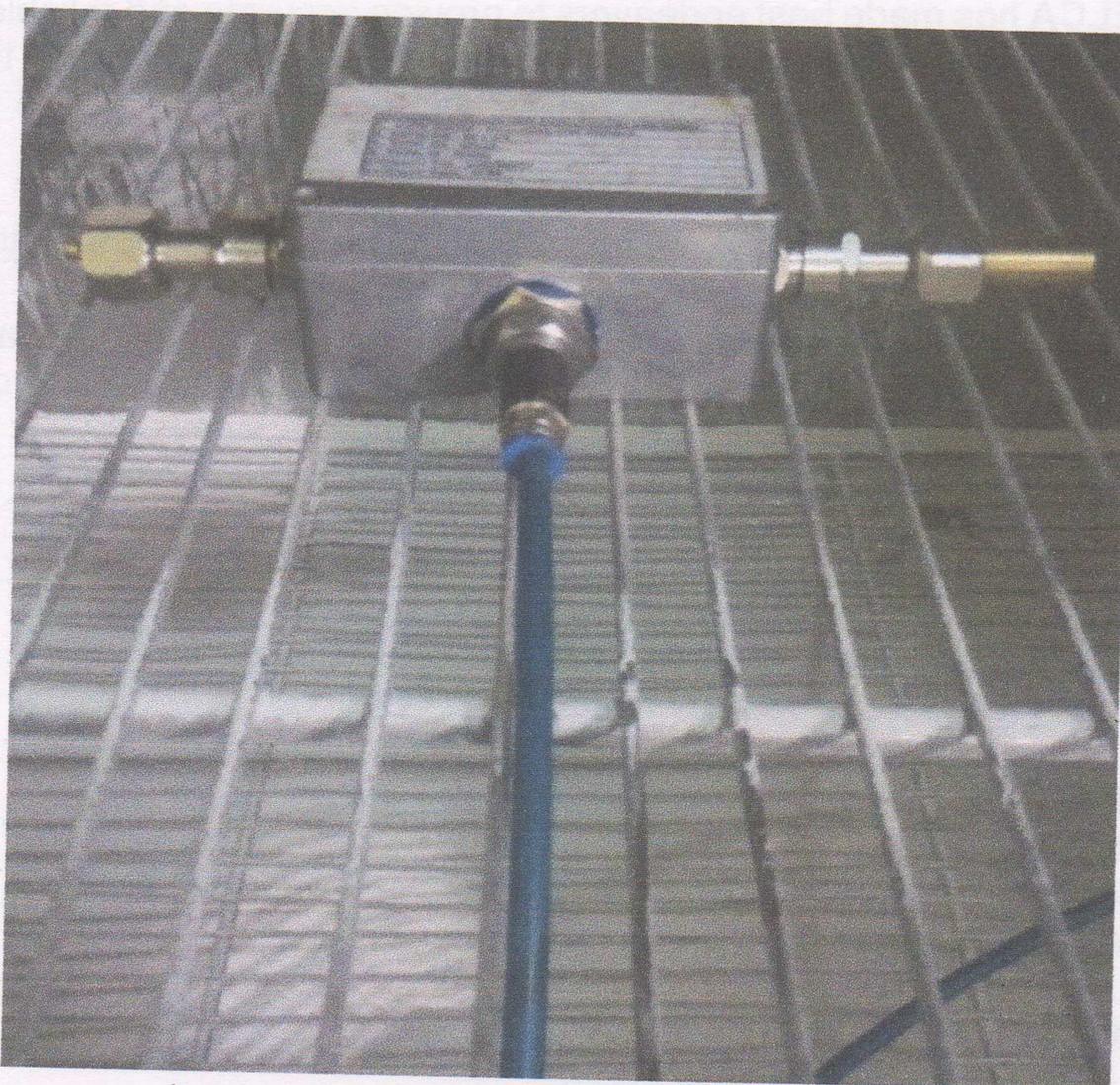
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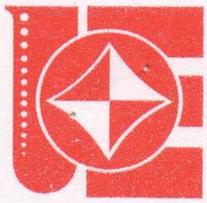
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The sample was tested for water test as per following conditions:

Equipment used	12.5 mm. water jet with 100 lpm flow meter
Location of the cable gland	2.5 mtr. from water jet
Duration of test for each cable gland	3 min.
IP code	Second Characteristic numeral : 6

The samples & Junction box were seen before dust test as follows:





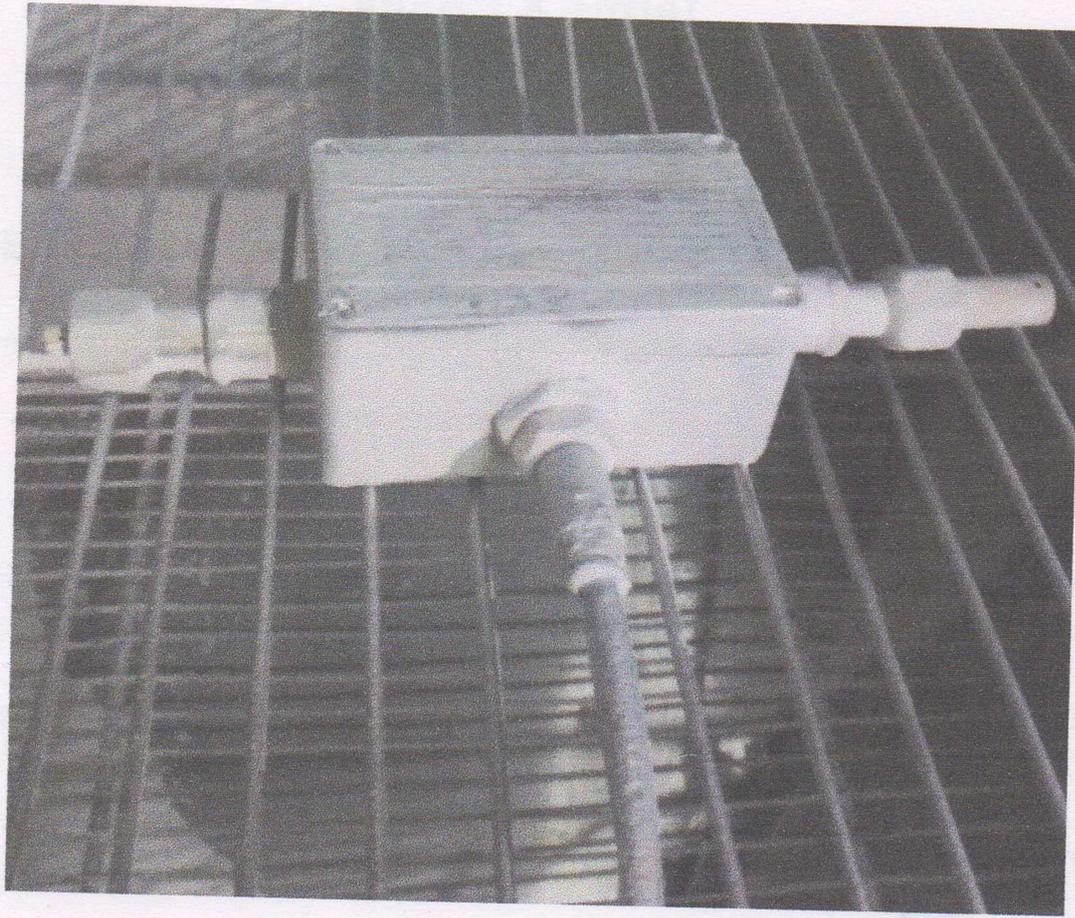
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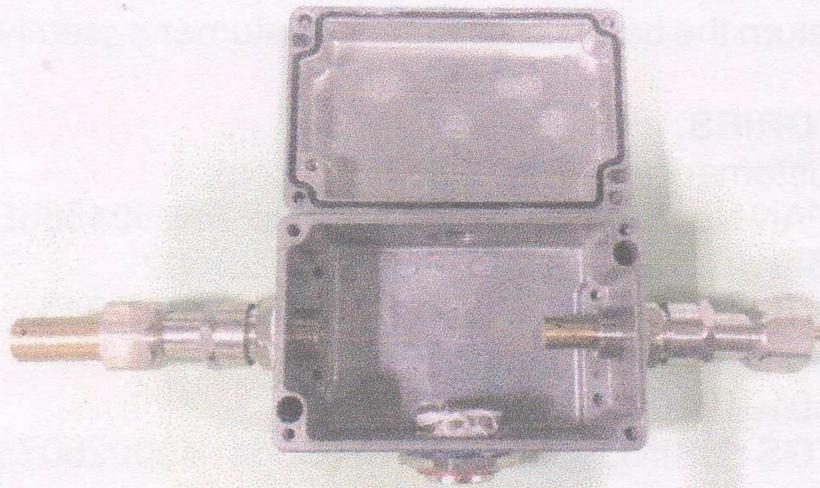
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Continuation Sheet of Test report No: E-497 to E-498

The samples & Junction box were seen after dust test as follows:

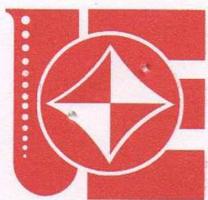


The samples were seen after water test as follows:-



The IP test procedure is based on IEC 60529 (Degrees of Protection provided by enclosures (IP Code)).
After the completion of each test sample was visually inspected.

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Continuation Sheet of Test report No: E-497 to E-498

5.0 TEST RESULT :

Sr. no.	ELCA ID/ sample size	Name of test	Observations after test
1.	E-497/ A2FRC-20S	Dust test	No ingress of dust observed inside the Junction box.
		Water test	No ingress of water observed inside the Junction box.
2.	E-498/ A2FRC-20S16	Dust test	No ingress of dust observed inside the Junction box.
		Water test	No ingress of water observed inside the Junction box.

Result: The above cable glands satisfy the test requirements of IP 66.

-----END-----OF-----REPORT-----

Checked By:

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For ELCA LABORATORIES

[Handwritten signature]
Authorized Signatory
N Kalyan / Kartik Iyer
Proprietor / C.E.O.