



भारत सरकार Government of India
राष्ट्रीय परीक्षण शाला (द.क्षे.)
NATIONAL TEST HOUSE (SR)

347308

तरमणी, चेन्नई - 600 113. Taramani, Chennai - 600 113.
Phone : 22432374, 22431157 Fax : 22433158 email : nthsr@tn.nic.in

TEST CERTIFICATE

INTERIM/FINAL REPORT

| परीक्षण प्रमाण पत्र नं Test Certificate No | जारी होने की तिथि Date of Issue | कोड नं Code No | पृष्ठ Page | पृष्ठों की संख्या No of Pages |
|---|------------------------------------|-------------------|---------------|----------------------------------|
| NTH(SR)/EL(C)/2014/00222B | 16/06/2014 | 1400832588170 | 1 | 2 |

जिसे जारी करना है
Issued To : COBA EUROPE LTD.

पता
Address : MARLBOROUGH DRIVE, FLECKNEY, LEICESTERSHIRE LE8 8UR, UNITED KINGDOM

ग्राहक का सन्दर्भ सं एवं दिनांक
Customer's Ref. No. : CE/029/202/2014 Date: 16/05/2014

पंजिका सं एवं दिनांक
Register No & Date : 00222/NTH(SR)/EL(C)/30/05/2014

परीक्षण सामग्री का विवरण
Description of Test Item : Electrical Insulating matting made of Elastomer
Manufacturer's Name:

परीक्षण सामग्री का पहचान
Identification of Test Item : Electrical Insulating matting made of Elastomer,
Class:'2'
Size: 2m x 1m,
Thickness: 4mm

नमूना का विशिष्टि (यदि हों)
Product Specification (If any) : IEC 61111 Edition 2.0 2009-04

नमूना प्राप्ति की तिथि
Date of Receipt of the Test Item : 23/05/2014

कार्य सम्पादन की तिथि
Date(s) of Performance of Tests : From: 30/05/2014 To: 16/06/2014

ब्याबहृत प्रणाली का पहचान
Method(s) used for Test : IEC 61111 Edition 2.0 2009-04

नमूना प्रक्रिया जहाँ प्रासंगिक हों
Sampling Procedure where relevant : Not Applicable

Tested By

V. Sivaguru

SO Electrical

Checked By

A. Muthuraman

SO Electrical

Approved By

S.B. Nanda Kumar

Scientist-SC(Electrical)



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| परमाणु परमाणु परमाणु Test Certificate No NTH(SR)/EL(C)/2014/00222B | जारी होने की तिथि Date of Issue 16/06/2014 | कोड नं Code No 1400832588170 | पृष्ठ Page 2 | पृष्ठों की संख्या No of Pages 2 |
|--|--|------------------------------------|--------------------|---------------------------------------|

| Sl. No. | Test Name | Test Result | Limit |
|---------|-------------------|---------------------------------|----------------------|
| 1 | Type Test | Results reported in annexure | As per specification |
| | टिप्पणी Note | : Reported in annexure. | |
| | कैफियत Remarks | : Results reported in annexure. | |

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SO Electrical

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SO Electrical

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1. Description of the sample :

- a. Nomenclature : Electrical Insulating matting made of Elastomer, Class '2'
b. Size : 2m x 1 m, Thickness: 4 mm,
c. Quantity : 2 Number.

As requested the sample has been subjected to IEC 61111 Edition 2.0 2009-04 with the results noted below.

2. Visual Inspection (Cl. 5.2)

- a. Classification : Class '2'
b. Composition : Elastomer, with slip resistance both sides
c. Dimensions : Length: 2m, Breadth: 1 m, Thickness: 4 mm,
d. Workmanship and finish : Generally Satisfactory, no harmful physical irregularities found on both surfaces

| 3. Tests | Observed | Specified |
|--|--------------|-----------|
| a. Mechanical Puncture resistance (as per cl. 5.5.2 of the specification) Test carried out on both sides of the sample on two samples. Puncture resistance in N | Satisfactory | 70 (Min) |
| i. Side 1 | 75 | |
| ii. Side 2 | 75 | |

Tested by

V. Sivaguru
Scientific Officer (Elect.)

Checked by

A. Muthuraman
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Approved by

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Scientist SC (Elect.)



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| | Observed | Specified |
|---|-----------------------------------|--|
| <p>b. Voltage Proof test (as per cl. 5.6.2.2.2 of the specification) Mask with picture frame made up of insulating material with a opening of 762x762mm in the middle and kept on a earthed metal plate. The opening was filled by a conductive material. The sample kept on this arrangement and top electrode of size 762mm X 762mm place above this. (such arrangement shown in Picture 1)</p> <p>An ac voltage of 20kV (rms) at 50 Hz applied and kept constant for 3 minutes.</p> | Withstood the test satisfactorily | Shall withstand without breakdown or flashover |
| <p>c. Voltage Withstand Test (as per cl. 5.6.2.3 of the specification) Electrode: 25mm (Top) x 75mm (Bottom) An ac voltage at 50 Hz applied with a rate of rise of voltage 1000V/sec. until it reaches 30kV.</p> | Withstood the test satisfactorily | Shall withstand without breakdown or flashover |
| <p>d. Ageing test (as per cl. 5.7 of specification) Sample conditioned at 70°C±2°C for 168 hours.</p> <p>Mechanical Puncture resistance (as per cl. 5.5.2 of the specification) Test carried out on both sides of the sample on two samples.</p> <p>Puncture resistance in N</p> <p>i. Side 1 ii. Side 2</p> | Satisfactory 68 69 | (Minimum 80% of puncture resistance before ageing) 60 (Min) 60 (Min) |
| <p>e. Flame retardance test (as per cl.5.8.1 of the specification) Application of flame 10s and after withdrawal, the propagation of flame was observed for 55s and it shall not reach any point of 50mm diameter.</p> | Satisfactory 45mm | Propagation of flame shall not reached 50 mm diameter of circle |

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| | Observed | Specified |
|--|---|---|
| <p>f. Low Temperature folding test (as per cl. 5.8.2 of the specification) Sample conditioned at (-)25±3°C for 4 hours. After this the test piece folded at the midpoint and placed between two polyethylene plates and subjected to a force of 100N for 30s.</p> <p>i. Visual inspection</p> <p>ii. Voltage Withstand Test (An ac voltage at 50 Hz applied with a rate of rise of voltage 1000V/sec. until it reaches 30kV).</p> | <p>Satisfactory as no crack or tear break observed</p> <p>Withstood the test satisfactorily</p> | <p>Shall not show crack or tear break observed</p> <p>Shall withstand without breakdown or flashover</p> |
| <p>g. Acid resistance (as per cl. 5.9 of the specification) Sample shall be immersed in Sulfuric acid solution at 23°C±2°C for 8h. after this rinsed with water and dried for 2h at 70°C.</p> <p>Mechanical Puncture resistance (as per cl. 5.5.2 of the specification) Test carried out on both sides of the sample on two samples.</p> <p>Puncture resistance in N</p> <p>i. Side 1</p> <p>ii. Side 2</p> <p>iii. Voltage Withstand Test (An ac voltage at 50 Hz applied with a rate of rise of voltage 1000V/sec. until it reaches 30kV).</p> | <p>Satisfactory</p> <p>63</p> <p>64</p> <p>Withstood the test satisfactorily</p> | <p>(Minimum 75% of puncture resistance before ageing)</p> <p>56.25 (Min)</p> <p>56.25 (Min)</p> <p>Shall withstand without breakdown or flashover</p> |

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| | Observed | Specified |
|---|--|---|
| <p>h. Oil resistance (as per cl. 5.10 of the specification) Sample shall be immersed in Oil 23°C±2°C at 50% RH for 3h. after this rinsed with water and dried for 24h at 70°C.</p> <p>Mechanical Puncture resistance (as per cl. 5.5.2 of the specification) Test carried out on both sides of the sample on two samples.</p> <p>Puncture resistance in N</p> <p>i. Side 1</p> <p>ii. Side 2</p> <p>iii. Voltage Withstand Test (An ac voltage at 50 Hz applied with a rate of rise of voltage 1000V/sec. until it reaches 30kV).</p> | <p>Satisfactory</p> <p>59</p> <p>58</p> <p>Withstood the test satisfactorily</p> | <p>(Minimum 75% of puncture resistance before ageing)</p> <p>56.25 (Min)</p> <p>56.25 (Min)</p> <p>Shall withstand without breakdown or flashover</p> |

Note: The average ambient condition during the above test was as follows:-

Temperature : 25±2°C
Relative Humidity : 60 to 70 %

###END OF TEST CERTIFICATE###

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