



PLANT PURCHASING SPECIFICATION BHOPAL

BP 25789

REV NO. 04

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SUPERSEDES
BP 25789 Rev 03

SILICONE ELASTOMER IMPREGNATED GLASS TAPE (BIAS-CUT)

1. GENERAL:

This specification governs the quality of bias-cut tape manufactured from soft flexible off white glass cloth by impregnating with silicone elastomer. Material has good resistance to corona discharge, weathering, oxidation and fungus attack allied with good moisture resistance and low water transmission rate. Material is fairly resistant to weak acids, alkalies, solvents and oils. The material has temperature index of at least 180.

2. APPLICATION:

Used for taping of brazed and bolted field connections in Traction Motors.

3. COMPLIANCE WITH NATIONAL STANDARDS:

There is no Indian Standard covering this type of material.

4. DIMENSIONS AND TOLERANCES:

4.1 Sizes

Thickness, Width and Length shall be as stated on the order.

4.2 Thickness & Tolerance.

Finished Fabric : 0.15± 0.015 mm

(Base Fabric : 0.075 mm, Nominal)

4.3 Preferred Width & Tolerance : 25 ± 1.0 mm.

However, any other width may also be ordered.

4.4 Preferred Length/Roll : 50 meter.

However, any other length may also be ordered.


Revision :
Reviewed & Brought up to date

Issued by : 
STANDARDS AND MATERIALS GROUP
TECHNICAL SERVICES DEPARTMENT

Rev. 04

Date : 31.12.2021

Date of first Issue: March' 1969

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5. **FINISH:**

The material shall be flexible. The surface shall be uniform, smooth and free from defects such as bubbles, pinholes, creases and flaws. It shall be capable of being unrolled without damage. All the material in any one consignment shall be of the same quality and have the same properties as per this specification throughout the whole length of each roll.

6. **TEST METHODS:**

Unless otherwise specified, the tests shall be conducted in accordance with the relevant methods of IS: 3352.

7. **SAMPLE FOR TEST:**

One roll of tape shall be supplied for testing and approval.

8. **PHYSICAL PROPERTIES:**

8.1 Water absorption after 24 ± 1 hours water immersion : 4.0% Max.
 Shall be tested on 200 mm long sample.

9. **MECHANICAL PROPERTIES:**

9.1 Breaking Load: 10 N/mm width, min.

10. **ELECTRICAL PROPERTIES:**

10.1 Electric Strength (BDV) IS:2584

10.1.1 At Room Temperature :

Unextended Tape : 40KV/mm, Min.

Tape under 10% Extension : 35 KV/mm, Min.

10.2 Flexibility:

No reduction in Electric Strength (BDV), measured at room temperature before and after bending the material around a mandrel of 1 mm diameter.

10.3 Specific Resistance As received at 27 ± 2 deg C : 6×10^{12} Ohm (Min.)



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11. CHEMICAL PROPERTIES:

11.1 Identification of Elastomer.

The elastomer as identified by Infra-Red Spectrophotometer or any other conventional method shall be silicone elastomer.

12. TEST CERTIFICATES:

Unless otherwise specified, three copies of test certificates shall be supplied with each consignment.

In addition, the supplier shall ensure to enclose one copy of test certificate along with their dispatch documents to facilitate quick clearance of the material.

The test certificate shall bear the following information:

BP 25789 (Rev.04) : Silicone Elastomer Impregnated Glass Tape (Bias - Cut)

BHEL Order No.

Batch/Lot No.

Test values obtained/certificate for compliance for clause 4, 5 & 8 to 11.

13. PACKING AND MARKING:

Tape shall be wound on a hollow core of suitable material, of length equal to width of the tape. The core shall have an inside diameter of approximately 40 mm and be sufficiently strong to support the tape without collapsing. The tape shall be wrapped in a strong paper.

Each package shall be marked with following information:

BP 25789 : Silicone Elastomer Impregnated Glass Tape (Bias - Cut)

BHEL Order No.

Manufacturer's / Supplier's Name and Grade

Batch / Lot No.

Thickness, Width and Length.

Month & Year of Manufacture.

Quantity.