



HEAT SHRINKABLE WOVEN POLYESTER TAPE

1.0 GENERAL:

This specification governs with the quality requirements of Heat shrinkable, unvarnished woven polyester tape, woven firmly and uniformly in plain weave with selvages. The selvages shall be uniform throughout and shall not be heat sealed.

2.0 APPLICATION:

Used as shrink tape in the insulation of electrical machines.

3.0 COMPLIANCE WITH NATIONAL STANDARDS:

There is no national standard covering this material.

4.0 DIMENSIONS AND TOLERANCES:

The dimensions shall be specified in BHEL order.

4.1 Sizes:

The following are preferred sizes:

4.1.1 Thickness:

0.13 + 0.04 mm
- 0.01 mm

4.1.2 Width:

20 ± 1 mm, 25 ± 1 mm, 40 ± 1.5 mm

4.1.3 Length/Roll:

50 metres

5.0 TEST SAMPLES:

One roll of 50 metres length shall be supplied for testing and approval purposes.

6.0 PROPERTIES:

When tested in accordance with the relevant clauses of IS:5351, the test sample shall show the following properties:

Revisions :

Letter from HW

APPROVED :

INTERPLANT MATERIAL
RATIONALISATION COMMITTEE-MRC (E)

Rev. No. 02

Amd.No.

Reaffirmed

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BHOPAL

Corp. R&D

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**6.0 PHYSICAL PROPERTIES:****6.1.1 Thread Count (Preferred) :**

Warp : 24 – 26 / cm
Weft : 13 – 15 / cm

6.2 TYPE TESTS:**6.2.1 CHEMICAL PROPERTIES:**

pH value of aqueous extract : 8 - 10
Conductivity of 1% aqueous extract : 70 micro mhos/cm, max.

6.3 MECHANICAL PROPERTIES:

Breaking load – as received : 25 kg/cm width.

6.4 THERMAL PROPERTIES:**Thermal shrinkage:**

Tested on a length of 250 mm and recording change in after heating at $160 \pm 2^{\circ}\text{C}$ length as percentage under specified load for one hour.

Load, g	Temperature, °C	Shrinkage, %, minimum
5	160	15
60	160	12
500	160	7

7.0 ACCEPTANCE CRITERIA:

Material shall be accepted on the basis of the following:

- Compliance certificate furnished by the supplier
- Test certificate furnished by the supplier and / or testing carried out at BHEL end.

8.0 TEST CERTIFICATES:

Unless otherwise stated, three copies of test certificates shall be supplied along with each consignment giving following information:

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

AA 237 02, Rev 02: Heat shrinkable woven polyester tape

BHEL order No.

Manufacturers/suppliers Name:

Trade name/mark, if any:

Batch/Lot No.;

Test values of clause 4.0 and 6.0.



9.0 PACKING AND MARKING:

Roll shall be packed in sealed wrappers and supplied in wooden boxes to prevent damage during transit.

Each box shall be marked with the following information:

AA 237 02: Heat shrinkable woven polyester tape

BHEL order No.

Manufacturers/suppliers Name:

Trade mark, if any

Batch/Lot No.

Thickness , width and length of the tape

Quantity supplied

Date of manufacture

10.0 REFERRED STANDARDS (Latest Publications Including Amendments):

- 1) IS: 5351