



AMENDMENT - NOTIFICATION

AA 22801 Rev.No. 01

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AA 22801: POLYSTER FILM

1.0 Page 2 of 3: Cl.9.3: Bursting Strength

Replace the existing matter will the following

1.76 N/cm² (0.18 kgf/cm²) per micron thickness, min.

Test method as per IEC: S54 Part II

Please see instructions on the reverse

Ref:	Amd.No.	Approved	Issued	Date:	Curr.Sr.No.
TSD/SM/420 Dt.9.7.97 from BHOPAL	01	MRC(E)	CORP.R&D	15.7.97	A 2142



POLYESTER FILM

FOR INTERNAL USE ONLY
REMOVE THIS PREFACE BEFORE ISSUE TO SUPPLIERS

Equivalent Standards:

Acceptable Commercial Grades/suppliers:

1. Melinex of M/s. ICI, U.K.
2. Mylar Type A of M/s. DU POINT, U.K.
3. M/s. Garware Plastics Pvt. Ltd., Poona.

Replaced Plant Specifications/References:

1. BHOPAL : PS 229 87 A
2. HARDWAR : No. Spec. Melinex of M/s. ICI.

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Revisions: Brought upto date.

Approved: INTERPLANT MATERIAL RATIONALISATION COMMITTEE-MRC(E)

Rev. No.	Rev. Date	Revised:	Prepared	Issued	Date
01	De., '89	BHOPAL	BHOPAL	CORP. R&D	25 Feb., '80

**POLYESTER FILM**1. **GENERAL:**

This specification governs the quality of polyester film made by drawing or extruding polyethylene terephthalate (PETP) having very good mechanical, electrical and dimensional stability properties, low water absorption, highly resistant to dilute acids, alkalies, oils & greases, alcohols and hydrocarbons. The material has a temperature-index of at least 130.

2. **APPLICATION:**

Used as insulating tape in electrical machines, as a release film and as protective covering etc.

3. **COMPLIANCE WITH NATIONAL STANDARDS:**

There is no Indian Standard covering this tape of material.

4. **DIMENSIONS AND TOLERANCES:**4.1 **Sizes:**

Thickness x width x length of the film shall be stated on order.

4.2 **Thickness:**4.2.1 **Preferred Thickness:**

8, 10, 12, 20, 25, 50 Microns.

4.2.2 **Tolerance:**

± 5%.

4.3 **Preferred Width:**

4.3.1 Tape : 25, 50 mm.

Tolerance : ± 1.0 mm.

4.3.2 Sheet : 500, 1000 mm.

Tolerance : ± 5 mm.

However any other width can also be ordered.

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Revisions : Brought upto date.

Approved :
**INTERPLANT MATERIAL
RATIONALISATION COMMITTEE -MRC(E)**

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5. **FINISH:**

Shall be clean, free from blisters, blow holes and wrinkles. Optical properties shall be consistent from lot to lot.

6. **TEST METHODS:**

As stated against each clause.

7. **SAMPLE FOR TEST:**

A roll of sample in as received condition shall be supplied for testing.

8. **PHYSICAL PROPERTIES:**8.1 **Substance:**

1.3 gm/m²/micron thickness, Min.

8.2 **Shrinkage, After 24 Hours At 130°C In Either Direction:**

3% max.

Tested on a sample of size 100 x 100 mm for sheets. For tapes sample size will be 100 mm x width of tape.

8.3 **Water Absorption After 24 Hrs Immersion:**
(On sample of 5 sheets of 200 x 200 mm)

0.8%, Max.

9. **MECHANICAL PROPERTIES:**9.1 **Breaking Strength, In Either Direction:**
(App. E, IS: 2448 Part II)

14700 N/cm² (1500 kgf/cm²), Min.

9.2 **Elongation At Break, In Either Direction:**
(App. F, IS: 2448 Part II)

50%, Min.

9.3 **Bursting Strength:**

1.76 N/cm² (0.18 kgf/cm²) per micron thickness, Min.

9.4 **Tear Strength, In Either Direction:**

Thickness		Tear Strength gm/micron thickness, Min.
Above (Micron)	Upto and including (Micron)	
-	15	0.7
15	50	0.8

10. ELECTRICAL PROPERTIES:10.1 Electric Strength, BDV Using 6 mm Dia. Electrodes (IS: 2584):

Thickness (micron)		Electric Strength (BDV) Kv/mm, Min.
Above	Upto & Including	
-	15	300
15	25	240
25	50	200

10.2 Dissipation Factor (Tan delta) (ASTM D-150):At 50 Hz & 100 Volts

0.0025, Max.

10.3 Volume Resistivity (ASTM D-257): 1×10^{16} Ohm-cm, Min.

- NOTE:** 1) For tape tests as per Cl. 8.2, 9.1, and 9.2 possible in one direction only.
- 2) Tests per Cl. 8.3, 9.3, 9.4, 10.2 and 10.3 applicable to sheets only.

11. TEST CERTIFICATES:

Three copies of test certificate shall be supplied with each consignment, giving the following information:

AA 22801 : Polyester Film.

Rev. 01

BHEL Order No.

Batch No.

Date of Manufacture:

Test values obtained for Physical, Mechanical and Electrical Properties and the Dimensional Tolerances as per the specification.

12. PACKING AND MARKING:

Rolls shall be suitably packed to prevent damage during transit and storage.

Packages shall be labelled with the following information:

AA 22801 : Polyester Film.

BHEL Order No.

Manufacturer's/Supplier's Name and grade:

Batch No./Lot No.

Thickness, width and length:

Net Weight.