



**PRODUCT MANUAL FOR  
TEXTILES – MONOAXIALLY ORIENTED HIGH DENSITY POLYETHYLENE TAPES  
According to IS 6192:1994**

*This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure coherence of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification licence/certificate.*

1.	<b>Product</b>	:	IS 6192:1994
	<b>Title</b>	:	Textiles – Monoaxially Oriented High Density Polyethylene Tapes - Specification
	<b>No. of Amendments</b>	:	0
2.	<b>Sampling Guidelines:</b>		
a)	<b>Raw material</b>	:	Shall comply with Cl. 4 of IS 6192:1994
b)	<b>Grouping guidelines</b>	:	If sample of Pigment variety is drawn, non-pigmented may also be considered for GOL/COS
c)	<b>Sample Size</b>	:	50 meter
3.	<b>List of Test Equipment</b>	:	Please refer ANNEX – <u>A</u>
4.	<b>Scheme of Inspection and Testing</b>	:	Please refer ANNEX – <u>B</u>
5.	<b>Possible tests in a day</b>	:	Please refer ANNEX – <u>C</u>
6.	<b>Scope of the Licence :</b>		
	“Licence is granted to use Standard Mark as per IS 6192:1994 with the following scope:		
	Name of the product	Textiles – Monoaxially oriented High Density Polyethylene Tapes	
	Type	Pigmented/Unpigmented tapes	

**ANNEX A**  
**PRODUCT MANUAL FOR**  
**TEXTILES – MONOAXIALLY ORIENTED HIGH DENSITY POLYETHYLENE TAPES**  
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**List of Test Equipment**

***Major test equipment required to test as per the Indian Standard***

<b>Sl. No.</b>	<b>Tests used in with Clause Reference</b>	<b>Test Equipment</b>
1.	Linear Density, Cl 5.1	Pan Balance and weights (0.1 mg accuracy) Drying oven with forced ventilation and positive valve control (105±3°C) Wrap Reel
2.	Tenacity, Cl 5.2 and Elongation at Rupture, Cl 5.3	Constant Rate of Extension Tensile Testing Machine
3.	Width and thickness, Cl 5.4	Steel rule having 0.1 mm divisions, Spring -loaded dial micrometer (accuracy 2 µm, pressure applied by contact foot 140 kN/m <sup>3</sup> , min.)
4.	Heat Shrinkage	Water bath Apparatus for heat shrinkage test as per IS 6193
5.	Conditioning	Conditioning chamber with temperature and relative humidity indicators/controllers
6.	Misc.	Laboratory glassware (beakers, flasks etc.)

***The above list is indicative only and may not be treated as exhaustive.***

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**ANNEXURE-B**

**SCHEME OF INSPECTION AND TESTING FOR  
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**1.LABORATORY-** A laboratory shall be maintained which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

1.1 The manufacturer shall prepare a calibration plan for the test equipment.

**2. TEST RECORDS** –The manufacturer shall maintain test records for the tests carried out to establish conformity.

**3. PACKING AND MARKING** – The Standard Mark, as given in the Schedule of the licence, shall be marked on each package of tape, provided always that the product thus marked conforms to every requirements of the specification.

3.1 Packing and marking on each package of tape shall be done as per the provisions of the Indian Standard. In addition, the following details shall be marked on each package of tape:-

a) BIS Licence No. CM/L-----.

b) BIS website details i.e. –“For details of BIS certification please visit [www.bis.gov.in](http://www.bis.gov.in)

**4. CONTROL UNIT** – For the purpose of this scheme, all the Monoaxially oriented High-Density Polyethylene Tapes of the same width manufactured in a day, shall be considered as a control unit.

**5. LEVELS OF CONTROL** - The tests as indicated in column 1 of Table 1 and the levels of control in column 3 of Table 1, shall be carried out on the whole production of the factory which is covered by this plan and appropriate records maintained in accordance with paragraph 2 above.

5.1 All the production which conforms to the Indian Standards and covered by the licence should be marked with Standard Mark.

**6. REJECTIONS**–Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act, 2016.

TABLE 1 LEVELS OF CONTROL

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or)S: Sub-contracting permitted	Levels of Control		
CI	Requirement	Test Methods			No. of Samples	Frequency	Remarks
		Clause	Reference				
4	Material	4	IS 6192:1994	S	One	Each Consignment	See Note 3
5.0	Requirements						
5.1	Linear Density	5.1	IS 6193:1971	R	4	Each Control Unit	Samples from different knitting machines are to be taken
5.2	Tenacity	5.4	-do-	R	-do-	-do-	
5.3	Elongation	5.4	-do-	R	-do-	-do-	
5.4	Width	5.2	-do-	R	-do-	-do-	
5.5	Thickness	5.3	-do-	R	-do-	-do-	
5.6	Heat shrinkage	5.5	-do-	R	-do-	-do-	
5.7	Colour fastness to light		IS/ISO 105-B02 : 2014	S	One	Once every six months	(only for Pigmented tapes)

Note-1: Whether test equipment is required or sub-contracting is permitted in column 2 shall be decided by the Bureau and shall be mandatory. Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empaneled by the Bureau.

Note-2: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control unit/batch/lot and submit his own levels of control in column 3 with proper justification for approval to BO head.

Note-3: No testing is required, In case consignment of material (polyethylene) is accompanied with manufacturer's test certificate indicating conformity.

**ANNEXURE-C**

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**POSSIBLE TESTS IN A DAY\***

<b>Sl. No.</b>	<b>Clause No.</b>	<b>Test Requirement</b>
1	5.1	Linear Density
2	5.2	Tenacity
3	5.3	Elongation
4	5.4	Width
5	5.5	Thickness
6	5.6	Heat Shrinkage

\*These tests can be done in a day provided the samples are already conditioned as prescribed in the Indian Standard