



उत्पाद का मार्गदर्शन
एग्रो टेक्सटाइल्स - पॉलीप्रोपाइलीन स्पन बॉन्डेड नॉन-वोवन मल्च मैट के लिए कृषि और
बागवानी अनुप्रयोग

IS 17355:2020 के अनुसार

PRODUCT MANUAL FOR

**AGRO TEXTILES — POLYPROPYLENE SPUN BONDED NON-WOVEN MULCH MAT FOR
AGRICULTURAL AND HORTICULTURAL APPLICATIONS AS PER IS 17355:2020**

भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम 2018 की स्कीम-I के तहत यह उत्पाद
मैनुअल प्रमाणीकरण की संचालन रीति में सुसंगतता और पारदर्शिता सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा
कार्यालयों एवं लाइसेंसधारियों द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा।
बीआईएस लाइसेंस/प्रमाण पत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज़ का उपयोग
किया जा सकता है।

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.	उत्पाद Product	:	IS 17355:2020
	शीर्षक Title	:	AGRO TEXTILES — POLYPROPYLENE SPUN BONDED NON-WOVEN MULCH MAT FOR AGRICULTURAL AND HORTICULTURAL APPLICATIONS
	संशोधन संख्या No. of amendments	:	Nil
2.	नमूनाकरण दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	No specific requirement

b)	समूहिकरणदिशानिर्देश Grouping Guidelines	:	Sample of each Type to be tested
c)	नमूनेकापरिमाण Sample Size	:	10m length
3.	परीक्षणउपकरणोकीसूची List of Test Equipment	:	Please refer Annex – A
4.	निरीक्षणवपरीक्षणस्कीम Scheme of Inspection and Testing	:	Please refer Annex – B
5.	एक दिन में संभावित परीक्षण Possible tests in a day	:	a) Length b) Width c) Mass d) Thickness e) Tensile strength, Machine direction & Cross direction f) Elongation, Machine direction & Cross direction g) Colour h) Ash content i) Trapezoid tear strength, Machine and Cross direction
6.	लाइसेन्स का कार्यक्षेत्र /Scope of the Licence:		
	IS 17355:2020 केअनुसारमानकमुहरकाउपयोगकरनेकेलिएलाइसेन्सनिम्नलिखितकार्यक्षेत्रकेलिएप्रदानकियाजाताहै Licence is granted to use Standard Mark as per IS 17355:2020 with the following scope:		
	Name of the product	AGRO TEXTILES — POLYPROPYLENE SPUN BONDED NON-WOVEN MULCH MAT FOR AGRICULTURAL AND HORTICULTURAL APPLICATIONS	
	Type	Type 1/ Type 2	

ANNEX-A
Test equipment list

Major test equipment essentially required to test as per requirements of Indian Standard.

S. No.	Test used in with Clause Reference	Test Equipment
1.	Length, Cl. 6.1, Table-1	Calibrated Steel Rule of atleast 2m graduated in cm and mm, Smooth flat table, Conditioning chamber to maintain Relative humidity of $65 \pm 2\%$ and temperature of 27 ± 2 deg C
2.	Thickness, Cl. 6.1, Table-1	Presser-foot, Reference plate having a plane surface of diameter at least 50mm greater than Presser foot, Measuring device with 0.01mm graduations
3.	Mass, Cl. 6.1, Table-1	Die of an area of atleast 50000mm ² , Template with an area of atleast 50000mm ² , Steel rule, Razor blade, Balance with an accuracy of $\pm 0.1\%$ of the determined mass
4.	Width, Cl. 6.1, Table-1	Calibrated Steel Rule of atleast 2m graduated in cm and mm, Smooth flat table, Conditioning chamber to maintain Relative humidity of $65 \pm 2\%$ and temperature of $27 \pm 2^\circ\text{C}$
5.	Tensile strength, Machine direction & Cross direction, Cl. 6.1, Table-1	Tensile testing machine (Constant Rate of Extension), Clamps
6.	Elongation, Machine direction & Cross direction, Cl. 6.1, Table-1	Tensile testing machine (Constant Rate of Extension), Clamps
7.	UV stability, Cl. 6.1, Table-1	Fluorescent UV-B lamp (313 nanometer or its equivalent), Tensile testing machine
8.	Colour, Cl. 6.1, Table-1	Visual observation
9.	Ash content, Cl. 6.1, Table-1	Weighing balance of accuracy 0.001g, Silica crucibles, Bunsen burner, Silica triangle and tripod, Muffle furnace, Desiccator, Gloves and Crucible holder
10.	Trapezoid tear strength, Machine direction & Cross direction	Tensile testing machine, Clamps, Template as per Fig. 1 of IS 15891 (Part 4)

Note: The above is an indicative list for the purpose of guidance only.

ANNEX-B

To Product Manual for

**AGRO TEXTILES — POLYPROPYLENE SPUN BONDED NON-WOVEN MULCH MAT FOR
AGRICULTURAL AND HORTICULTURAL APPLICATIONS
SCHEME OF INSPECTION AND TESTING**

- 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 and implement calibration plan for the test equipment.
- 2. TEST RECORDS** – The manufacturer shall maintain test records for the tests carried out to establish conformity.
- 3. LABELLING & MARKING** – The Standard Mark as given in the Schedule of the license and Licence Number (i.e., CM/L.....) shall be incorporated on the product , and the marking shall be done as per the provisions of the Indian Standard, provided always that the product thus marked conforms to all the requirement of the specification.
- 4. CONTROL UNIT** – All roll of Mulch Mat manufactured under similar conditions of production from the same raw material, in a day, shall constitute 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 to ensure that there is no violation of provisions of BIS Act, 2016.

TABLE 1
LEVELS OF CONTROL

TEST DETAILS				Test equipment requirement R: required (or) S: Sub-contracting permitted	LEVELS OF CONTROL		
Clause	Requirement	Test Methods			No. of samples	Frequency	Remarks
		Clause	Reference				
6.1	Length	6.1, Table-1	IS 1954	R	Manufacturer shall put in place adequate in-process controls and inspection to ensure conformity to requirements		
6.1	Width	6.1, Table-1	IS 1954	R	Manufacturer shall put in place adequate in-process controls and inspection to ensure conformity to requirements		
6.1	Mass	6.1, Table-1	IS 15891 (Part 1)	R	1	Every control unit	
6.1	Thickness	6.1, Table-1	IS 15891 (Part 2)	R	Manufacturer shall put in place adequate in-process controls and inspection to ensure conformity to requirements		
6.1	Tensile strength, Machine direction & Cross direction	6.1, Table-1	IS 15891 (Part 3)	R	1	Every control unit	
6.1	Elongation, Machine direction & Cross direction	6.1, Table-1	IS 15891 (Part 3)	R	1	Every control unit	
6.1	UV stability, Machine direction & Cross direction	6.1, Table-1	Annex-B	S	1	Once in a month	
6.1	Colour	6.1, Table-1	Table-1	R	1	Every control unit	
6.1	Ash content	6.1, Table-	Annex-C	R	1	Once in a week	

		1					
6.1	Trapezoid Tear strength, Machine direction & Cross direction	6.1, Table- 1	IS 15891 (Part 4)	R	1	Every control unit	

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 empanelled by the Bureau.

Note-2: The control unit and levels of control as decided by the Bureau are recommendatory and the licensee can submit his own levels of control which can be followed consequent to approval of Head BO.