



उत्पाद मैनुअल
AGRO TEXTILES — PLANT SUPPORT NETS FOR AGRICULTURE AND HORTICULTURE
PURPOSES

IS 17513:2020 के अनुसार

PRODUCT MANUAL
FOR AGRO TEXTILES — PLANT SUPPORT NETS FOR AGRICULTURE AND HORTICULTURE
PURPOSES
ACCORDING TO IS 17513:2020

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम, 2018 की योजना- I के तहत प्रमाणन के संचालन में अभ्यास और पारदर्शिता के संचालन में पारदर्शिता सुनिश्चित करने के लिए इस उत्पाद मैनुअल का उपयोग सभी क्षेत्रीय / शाखा कार्यालयों और लाइसेंसधारियों द्वारा संदर्भ सामग्री के रूप में किया जाएगा। दस्तावेज़ का उपयोग बीआईएस प्रमाणन लाइसेंस/प्रमाणपत्र प्राप्त करने के इच्छुक संभावित आवेदकों द्वारा भी 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 17513:2020
	शीर्षक Title	:	AGRO TEXTILES — PLANT SUPPORT NETS FOR AGRICULTURE AND HORTICULTURE PURPOSES
	संशोधनों की संख्या No. of amendments	:	Nil
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	HDPE filament Yarn shall conform to Cl. 4.1 & 4.1.1 of IS 17513: 2020.
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Sample of each Type to be tested

c)	नमूने का आकार Sample Size	:	10m length
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	Please refer Annex – A
4.	निरीक्षण और परीक्षण की स्कीम 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) Mesh type e) Average Mess Size f) Mesh breaking strength
6	Guidelines for sampling during surveillance		Factory samples and Market samples shall be tested every year for all tests except UV exposure, except for every 5th year when 1 of the factory samples shall be tested for all requirements including UV exposure.
6.	लाइसेंस का दायरा /Scope of the Licence:		
	Licence is granted to use Standard Mark as per IS 17513:2020 with the following scope:		
	Name of the product	AGRO TEXTILES — PLANT SUPPORT NETS FOR AGRICULTURE AND HORTICULTURE PURPOSES	
	Type	Type I/ Type II/ Type III	

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. 7.1 & 7.2	Calibrated Steel Rule of atleast 2m graduated in cm and mm, Smooth flat table, Conditioning chamber to maintain Relative humidity of 65±2% and temperature of 27±2 deg C
2.	Width, Cl. 7.1 & 7.2	Calibrated Steel Rule of atleast 2m graduated in cm and mm, Smooth flat table, Conditioning chamber to maintain Relative humidity of 65±2% and temperature of 27±2 deg C
3.	GSM, Cl. 7.3, Table-2	Method A- Conditioned Mass method Horizontal, smooth and flat table, Graduated Steel Scale, Balance capable of weighing to an accuracy of 0.005 g, Conditioning chamber suitable for maintaining 65±2% Humidity and 27±2°C Temperature Method B- Oven dry method Horizontal Smooth flat table, Graduated Steel scale, Drying oven, Balance capable of weighing to an accuracy of 0.005 g, T-square
4.	Mesh Type, Cl. 7.3, Table-2	Visual observation
5.	Average Mess Size, Cl. 7.3, Table-2	Ruler
6.	Mess Breaking Strength, Cl. 7.3, Table-2	Tensile Testing Machine (Constant rate of Elongation machine), Stop watch
7.	Retention of Breaking strength after UV exposure of 2500h, Cl. 7.3, Table-2	Fluorescent UV-B lamp (313 nanometer or its equivalent), Tensile testing machine, clamps, Chamber capable of maintaining temperature of 60°C & 50°C
8.	Colour fastness to artificial light, Cl. 7.3, Table-2	Blue wool reference materials 1 to 8 or L2 to L9, Dyes for blue wool references 1 to 8, Humidity chamber, Light source, Black-Standard Thermometer or Black-Panel Thermometer, Covers, Colour matching lamps, Assessment cabinet, Sample mounting card, Assessment Mask, Grey scale for assessing change in colour

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

ANNEX-B
To Product Manual for
AGRO TEXTILES — PLANT SUPPORT NETS FOR AGRICULTURE
AND HORTICULTURE PURPOSES
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 legibly marked on Each fabric roll/bundle , 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 fabric roll/bundle 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	Twine	6.1	IS 17513	R	Manufacturer shall put in place adequate in-process controls and inspection to ensure conformity to requirements		
6.2	Fabric	6.2	IS 17513	R	Manufacturer shall put in place adequate in-process controls and inspection to ensure conformity to requirements		
6.3	Colour	6.3	IS 17513	R	Manufacturer shall put in place adequate in-process controls and inspection to ensure conformity to requirements		
6.4	Tie Cord	6.4	IS 17513	R	Manufacturer shall put in place adequate in-process controls and inspection to ensure conformity to requirements		
6.5	Over Lock border rope	6.5	IS 17513	R	Manufacturer shall put in place adequate in-process controls and inspection to ensure conformity to requirements		
6.6	Stitching Twine	6.6	IS 17513	R	Manufacturer shall put in place adequate in-process controls and inspection to ensure conformity to requirements		
7.1 & 7.2	Length	7.1 & 7.2	IS 17513	R	Manufacturer shall put in place adequate in-process controls and inspection to ensure conformity to requirements		

7.1 & 7.2	Width	7.1 & 7.2	IS 17513	R	Manufacturer shall put in place adequate in-process controls and inspection to ensure conformity to requirements		
7.1 & 7.2	Mass	7.1 & 7.2	IS 17513	R	1	Every control unit	
7.3	GSM	7.3, Table-2	IS 1964	R	1	Every control unit	
7.3	Mesh Type	7.3, Table-2	IS 17513	R	1	Every control unit	
7.3	Average Mess size	7.3, Table-1	IS 15789	R	1	Every control unit	
7.3	Mesh Breaking Strength	7.3, Table-1	IS 5815 (Part 5)	R	1	Every control unit	
7.3	Retention of Breaking Strength after UV exposure of 2500h	7.3, Table-1	Annex-B and IS 5815 (Part 5)	S	1	Once in 5 years and whenever there is a change in the nature and source (supplier) of material	
7.3	Colour Fastness to artificial light	7.3, Table-1	ISO 105-B02	S	1	Once in amonth and whenever there is a change in the nature and source (supplier) of material	

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.