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उत्पाद मैनुअल
जूट एग्रो-टेक्स्टाइल - ग्रोथ के लिए सैपलिंग बैग सीडलिंग / सैपलिंग का
IS 16089:2013 के अनुसार

PRODUCT MANUAL FOR
JUTE AGRO-TEXTILE — SAPLING BAGS FOR GROWTH
OF SEEDLING/SAPLING — SPECIFICATION
according to IS 16089:2013

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 लाइसेंस धारियों 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 16089:2013
	शीर्षक Title	:	JUTE AGRO-TEXTILE — SAPLING BAGS FOR GROWTH OF SEEDLING/SAPLING — SPECIFICATION
	संशोधन संख्या No. of amendments	:	1
2.	नमूनाकरण दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	Sapling bag shall be made from hessian cloth. Conformity shall be established through supplier's certificate.
b)	समूहिकरण दिशानिर्देश Grouping Guidelines	:	Please refer Annex-A

c)	नमूने का परिमाण Sample Size	:	10 Nos. of Sapling bags
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	Please refer Annex – B
4.	निरीक्षण व परीक्षण स्कीम Scheme of Inspection and Testing	:	Please refer Annex – C
5.	एक दिन में संभावित परीक्षण Possible tests in a day	:	a) Mass b) Thickness c) Open area d) Threads, Warp & Weft e) Width of Hessian Fabric f) Length & Width of Sapling bags g) Water holding capacity h) Tensile strength, Warp & Weft
6.	लाइसेन्स का कार्यक्षेत्र /Scope of the Licence:		
	Licence is granted to use Standard Mark as per IS 16089:2013 with the following scope:		
	Name of the product	JUTE AGRO-TEXTILE — SAPLING BAGS FOR GROWTH OF SEEDLING/SAPLING	
	Sizes (Length & Width) of Sapling bag		

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Manak Bhawan, 9, Bahadur Shah Zafar Marg, New Delhi – 110002

Annex-A
Grouping Guidelines

The following grouping guidelines shall apply for Grant of Licence (GoL)/Change in Scope of Licence (CSoL):

- i. The manufacturer shall declare the sizes (length x width) of sapling bags being manufactured and intended to be covered in the scope of licence.
- ii. The bag of the smallest size ((length x width) shall be tested to cover all the larger sizes of sapling bags in the scope of licence.
- iii. The scope of licence shall be restricted based on the manufacturing and testing capabilities.
- iv. During the operation of licence, each size of bags covered in the scope shall be tested in rotation, to the extent possible

Annex-B

List of Test Equipment

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

S. No.	Test Equipment	Test used in with Clause Reference
1.	Horizontal, smooth and flat table, Graduated Steel Scale, T-Square, Balance capable of weighing to an accuracy of 0.05 g, Conditioning Oven suitable for drying samples to constant weight at 105-110°C, A suitable moisture meter	Mass, Cl. 4, Table-1
2.	Thickness tester, Interchangeable pressure foot, Reference plate, Means for moving the pressure foot, Thickness gauge, Stop watch	Thickness, Cl. 4, Table-1
3.	Apparatus for open area test including Light source chamber, Receiving Photo cell chamber, Monitor for showing Open area	Open area, Cl. 4, Table-1
4.	Humidity chamber with temperature setting facility, A thread counter equipped with a low power microscope of suitable magnification and a pointer which traverses along a graduated base	Threads, Warp & Weft
5.	Calibrated Steel Rule of length preferably 3m, Table having a smooth surface of length atleast 4m, Humidity chamber with temperature setting facility	Width of Hessian fabric
6.	Calibrated Steel Rule of length preferably 3m, Table having a smooth surface of length atleast 4m, Humidity chamber with temperature setting facility	Length and width of sapling bags
7.	Chamber containing water, Soap P40, wire mesh, Polythene sheet	Water holding capacity
8.	Tensile testing machine, Equipment for cutting test specimens	Tensile strength, Warp & Weft

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

Annex-C

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 each roll and on the packaging, 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 sapling bags 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				
4 & Table-1	Mass	4	IS 2387	R	1	Every control unit	
	Thickness	4	IS 7702	R	1	Every control unit	
	Open area	4	Annex-B of IS 16089	R	1	Every control unit	
	Threads, Warp & Weft	4	IS 1963	R	1	Every control unit	
	Width of Hessian fabric	4	IS 1954	R	1	Every control unit	
	Length & Width of sapling bags	4	IS 9113	R	Manufacturer shall ensure adequate inspection/in process controls to ensure bags conform to length and width requirements		
	Water Holding capacity	4	Annex-C of IS 16089	R	Manufacturer shall ensure adequate inspection/in process controls to ensure bags conform to capacity requirements		
	Tensile strength, Warp & Weft	4	IS 1969 (Part 1)	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: 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 by BO Head.