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उत्पाद मैनुअल

वस्त्रादी मेल छंटाई, भंडारण, परिवहन और वितरण के लिए पोलीप्रोपाइलीन (पी. पी.) / उच्च घनत्व
पोलीइथाइलिन (एच.डी.पी.ई.) के परत युक्त बुने हुए बोरे –विशिष्ट
IS 17399: 2020 के अनुसार

PRODUCT MANUAL

**FOR Textiles — Polypropylene (PP)/ High Density Polyethylene (HDPE) Laminated Woven
Sacks for Mail Sorting, Storage, Transport and Distribution — Specification
ACCORDING TO IS 17399: 2020**

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम, 2018 की योजना -I के तहत प्रमाणन के संचालन में एकरूपता और पारदर्शिता के लिए इस उत्पाद मैनुअल का उपयोग सभी क्षेत्रीय / शाखा कार्यालयों और लाइसेंसधारियों द्वारा संदर्भ सामग्री के रूप में किया जाएगा। दस्तावेज का उपयोग बीआईएस प्रमाणन 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 uniformity 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.

1.	मानकसंख्या IS No.	:	IS 17399: 2020
	शीर्षक Title	:	Textiles — Polypropylene (PP)/ High Density Polyethylene (HDPE) Laminated Woven Sacks for Mail Sorting, Storage, Transport and Distribution — Specification
	संशोधनों की संख्या No. of amendments	:	01
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	The material should be conforming to clause 5.1, 5.2 & 5.4.1 of IS 17399: 2020. Conformity of materials to the requirement of the specification may be established through either of the following or a combination of the same (No testing is required if the material is ISI marked): Test report from a laboratory recognized by the Bureau/ Government laboratories empanelled by the

			<i>Bureau/NABL accredited laboratories; Material supplier's test certificate; In-house factory test report.</i> <i>Note: This section indicates the requirements for raw material(if specified in the IS)for which compliance is to be established during Grant of Licence/Change in Scope of Licence/Factory Surveillance</i>
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer to Annex-A
c)	नमूनेकापरिमाण Sample Quantity	:	30 sacks Note: This section indicates the quantity of the sample of the product and/or the raw material (if applicable), required to be sent to the laboratory for testing, for the purpose of Grant of Licence/Change in Scope of Licence/ Factory Surveillance (in case of market surveillance, effort may be made to procure the required quantity of product sample, as far as possible since raw material sample may not be available in market)
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	Please refer to Annex-B
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer to Annex-C
5.	एक दिन में संभावित परीक्षण Possible tests in a day		
	All Tests except UV resistance test may be carried out in a day (Preconditioned samples to be used where applicable). Note: This section is for the guidance of BIS Certification Officers/Technical Auditors of BIS Authorized Outside Surveillance Agencies (OSAs) during factory inspection to provide ready reference regarding the tests which can be witnessed during the inspection in the factory by the officer/auditor.		
6.	लाइसेंस का दायरा/Scope of the Licence:		
	"Licence is granted to use Standard Mark as per IS 17399: 2020 with the following scope:		
	Name of the product	Textiles — Polypropylene (PP)/ High Density Polyethylene (HDPE) Laminated Woven Sacks for Mail Sorting, Storage, Transport and Distribution	
	Material	PP / HDPE	
	Type	Type-I/Type-II/Type-III	
	Optional requirements	With/Without UV stabilization	

ANNEX-A

GROUPING GUIDELINES

1. Based on dimensions of sacks, there are 3 types defined in the ISS:

<i>Dimensions</i>	<i>Sack Type</i>		
	<i>Type I</i>	<i>Type II</i>	<i>Type III</i>
L and W	350 × 350	350 × 350	455 × 455
H	750	1050	1220
NOTE – Refer Fig. 1 of IS 17399: 2020 for dimensional designation.			

2. Further, Based on the requirement, sacks can be manufactured with or without UV stabilization.

Considering the above, following grouping guidelines for GoL/CSoL have been developed:

Largest size of bag may be tested to cover all the types in the scope of licence.

UV stabilized sacks and Non-UV stabilized sacks shall be tested separately to cover in the scope of licence.

Scope of licence shall be restricted based on the manufacturing and testing facilities available.

During operation of licence, samples of each variety covered in the scope of licence, shall be tested in rotation, to the extent possible.

ANNEX-B

LIST OF TEST EQUIPMENTS

(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sl. No.	Tests Used In With Clause Reference		Test Equipment/Chemical
	Cl. No.	Test	
1	6.1	Mass of Bale	CONDITIONED MASS METHOD: Horizontal, Flat Smooth Table, Graduated Steel Scale, Balance — Capable of weighing to an accuracy of 0.005 g. OVEN-DRY METHOD : Horizontal, Smooth Flat Table, Graduated Steel Scale, Drying Oven — Suitable for drying sample to constant mass at 105 to 110°C, Balance — Capable of weighing to an accuracy of 0.005 g, T- Square
2	6.2	Breaking strength of laminated fabric, Seam strength of bottom and side panel seam, Elongation at break of fabric	Constant-rate-of-extension (CRE) Tensile testing machine capable of constant rates of extension of 20 mm/min and 100 mm/min, with an accuracy of $\pm 10\%$, equipment for cutting samples, Constant-rate-of-extension (CRE) Tensile testing machine capable of constant rates of extension of 460 mm/min.
3	6.3	Ash Content	Weighing Balance (accurate to 0.001 g), Silica Crucibles, Bunsen Burner, Silica Triangle and Tripod, Muffle Furnace, capable of being controlled thermostatically at $590 \pm 10^\circ\text{C}$, Desiccator, Gloves and Crucible Holder
4	6.4	UV Resistance test	UV Resistance Apparatus comprising Fluorescent UV-lamps Type B (313 nm or its equivalent), Constant-rate-of-extension (CRE) Tensile testing machine
5	6.5	Inside Dimensions	Measuring scale or measuring tape
6	6.5	Ends & picks per dm	Suitable gauge as per B-2 of Annex-B
7	8	Conditioning (Various clauses)	Air Conditioner or Conditioning Chamber to condition samples at $27 \pm 2^\circ\text{C}$ and $65 \pm 2\%$, Hygrometer, Weighing Balance Capable of weighing to an accuracy of at least 0.25 percent of the sample weight.

ANNEX C

SCHEME OF INSPECTION AND TESTING

1. QUALITY ASSURANCE PLAN

1.1 It is expected that manufacturers (licensees/applicants) will implement a Quality Assurance Plan i.e. a plan of regular testing and in-process controls, designed to ensure that the product bearing the Standard Mark conforms to all requirements of the Indian Standard.

1.2 The manufacturers shall define a Quality Assurance Plan defining the control unit (i.e. lot/batch etc.) and the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and submit the same to BIS Branch Office for information. The manufacturer shall comply with the same and maintain test records in accordance with para 2.4.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.3.1 For the guidance of manufacturers, the recommended definition of control unit is : All sacks having same construction, and produced under similar conditions of production in a day.

1.3.2 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommended levels of control are given in **Table 1**.

1.3.3 The manufacturer shall ensure inspection and testing as per the Quality Assurance Plan submitted by them on the whole production of the factory which is covered by this plan. Alternatively, the manufacturer has the option of adherence to the quality plan as per levels of control recommended in column 3 of Table 1.

1.4 However, all manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard.

2. ENSURING COMPLIANCE THROUGH TESTING- It is expected that manufacturers (licensees/applicants) will establish a suitably equipped and staffed in house laboratory (In house testing facility) for testing at least those parameters of the Indian Standard which require routine testing for ensuring quality of the product. This includes in-process controls as may be defined and put in place by the manufacturer and testing parameters/requirements which can only be performed in the factory.

2.1 For the guidance of manufacturers, Table 1 giving the recommended levels of control is given below. Column 2 of Table 1 indicates routine tests where test equipment is required in house as “R” or other tests which can be subcontracted as “S”. Subcontracting is permitted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.2 For MSME manufacturers, the requirement of maintaining a laboratory/in-house testing facility for routine tests (indicated as “R” in Column 2 of Table 1) is also optional.

2.2.1 MSME manufacturers may utilize common cluster based facilities as per guidelines for the utilization of cluster based test facilities by MSMEs or the provisions of Sharing of testing facilities or get testing done from BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.3 Large Scale manufacturers shall maintain an in-house laboratory equipped at least with test facilities for routine tests (indicated as “R” in Column 2 of Table 1), where different tests given in the specification shall be carried out in accordance with the method given in the specification. They shall also implement a calibration plan for the in-house test equipment.

2.3.1 Alternatively, in lieu of an in-house laboratory, large scale manufacturers can also utilize the provisions of Sharing of testing facilities as per the Guidelines for Grant of Licence available on BIS website

2.3.2 www.bis.gov.in. (Under Conformity Assessment>Product Certification Process). Even for subcontracted tests, provisions for sharing of testing facilities can be utilized.

2.4 TEST RECORDS- The manufacturers maintaining an in-house laboratory or utilizing common cluster based facilities or shared test facilities shall maintain test records for the tests carried out to establish conformity. For the tests being subcontracted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025, test reports issued by the laboratories shall be available for inspection by BIS.

3. PACKING AND MARKING - The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on each sack and bale cover provided always that the material so marked conforms to each requirement of the specification.

3.1 Packing and Marking shall be done as per the Indian Standard.

3.2 **Additional Marking requirements:** The material shall also be marked with the following additional requirement on each sack and bale cover:

a) “For BIS certification details please visit www.bis.gov.in”

4. STORAGE- Finished sacks or bales of sacks shall be stored in a ventilated, cool and dry place, covered warehouse at temperature below 50 °C and protected from direct sunlight, smoke, fumes, open flame and radiation.

5. REJECTION - All the production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the Standard Mark. 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
(ONLY FOR GUIDANCE PURPOSE)

	(1)			(2)	(3)		
	Test Details			Test equipment requirement R: required (or) S: Subcontracting permitted	Levels of		Control
Cl.	Requirement	Test Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
5.1	Raw materials	--	IS 10910/IS 10146	S	One	Each consignment	Conformity of materials to the requirement of the specification may be established through either of the following or a combination of the same (No testing is required if the material is ISI marked): Test report from a laboratory recognized by the Bureau/ Government laboratories empanelled by the Bureau/NABL accredited laboratories; Material supplier's test certificate; In house factory test report.
5.2	Fabrics						
	PP Tapes	--	IS 6192	S	--		
	Linear density of Tapes	5.1.3	6192	S	--		
	Mesh size of Fabric	5.2	IS 17399	R	Firm to have adequate in-process controls to check compliance of this parameter as per the tolerances given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity.		
	Unlaminated Fabric Mass	Annex-B	IS 17399				
5.3	Lamination						
	Coating mass for Lamination	Annex-B	IS 17399	R	Firm to have adequate in-process controls to check compliance of this parameter as per the tolerances given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity.		
	Laminated woven fabric mass	Annex-B	IS 17399				
5.4	Sack Fabrication	--	--				

5.5	Capacity	--	--				
6.1 & Table 1	Mass of bale	--	IS 1964	R	Firm to have adequate in-process controls to check compliance of this parameter as per the tolerances given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity.		
6.2 & Table 1	1) Breaking strength of Laminated Fabric a) Lengthwise b) Widthwise 2) Seam strength of bottom and side panel seam 3) Elongation at break of fabric a) Lengthwise b) Widthwise	--	IS 1969(Part 1) IS 9030 IS 1969(Part 1)	R	One	Each Control Unit	
6.3 & Table 1	Ash Content a) For UV stabilized sacks b) For non-UV stabilized sacks	6.3	IS 17399	R	One	Each Control Unit	
6.4	UV Resistance Test	6.4	IS 17399	S	One	Once in Three months	(If applicable)
6.5 & Table 1	Inner Dimensions	6.5	IS 17399	R	One	Firm to have adequate in-process controls to check compliance of this parameter as per the tolerances given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity.	
6.5 & Table 1	Ends & Picks per dm	6.5	IS 17399				