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उत्पाद मानयल

**TEXTILES —HIGH DENSITY POLY ETHYLENE
(HDPE) /POLYPROPYLENE (PP) WOVEN SACKS
FOR PACKAGING 50 KG/25 KG SUGAR**

IS 14968:2015 के अनुसार

**PRODUCT MANUAL For
TEXTILES —HIGH DENSITY POLY ETHYLENE
(HDPE) /POLYPROPYLENE (PP) WOVEN SACKS
FOR PACKAGING 50 KG/25 KG SUGAR
ACCORDING TO IS 14968:2015**

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, 2008 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification licence/certificate.

1. उत्पाद Product	:	IS 14968:2015
शीर्षक Title	:	TEXTILES —HIGH DENSITY POLY ETHYLENE (HDPE) / POLYPROPYLENE (PP) WOVEN SACKS FOR PACKAGING 50 KG/25 KG SUGAR -SPECIFICATION
संशोधनों की संख्या No.of amendments	:	05
2. नमूना दिशानिर्देश Sampling Guidelines		
a) कच्चा माल Raw material	:	The high density polyethylene (HDPE) or polypropylene (PP) (in the form of granules etc.) used for manufacture of tape shall conform to the requirements specified in Cl. 4.1 of IS 14968:2015.

		The fabric (and tape from which said fabric is woven) used to manufacture woven sacks shall conform to the requirements specified in Cl. 4.2 of IS 14968:2015 Liner material shall also conform to the to the requirements specified in Cl. 4.4 of IS 14968:2015 Conformity of the raw materials to the standard may be established through test certificate of supplier or test report of BIS recognized/empanelled lab or test report of any other NABL accredited lab or in house testing. If materials are ISI marked, no testing is required.* <i>*Those manufacturers who manufacture tape and/or fabric in house, shall carry out testing of linear Density/Denier and width of tapes, mesh and weight of fabric, and liner mass/dimensions/freedom from defects, in house during operation of licence</i> <i>However, those manufacturers which are procuring the fabric from outside and don't have in house fabric making facilities, may only test mesh and weight of fabric, and liner mass/dimensions/freedom from defects in house during operation of licence. They shall however, submit the evidence of conformity of linear Density/Denier and width of tapes in the form of test certificate of supplier or test report of BIS recognized/empanelled lab or test report of any other NABL accredited lab (testing not required if tapes are ISI marked).</i> <i>(PI also see the SIT at Annex-B)</i>
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	: Separate samples of HDPE/PP woven sacks of each type shall be tested. To cover sacks with UV stabilization in scope of licence, sample of UV stabilized sacks shall be tested.
c)	नमूने का आकार Sample Size	: 30 bags
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	: Dimensions, Ends and Picks, Mass, average breaking strength of fabric, breaking strength of bottom seam, elongation at break, ash content
6.	लाइसेंस का दायरा /Scope of the Licence	
	Licence is granted to use Standard Mark as per IS 14968:2015 with the following scope:	

	Name of the product	WOVEN SACKS FOR PACKAGING 50 KG/25 KG SUGAR
	Made from (material)	High density polyethylene (HDPE) and/or polypropylene (PP)
	Type	Type 1 or Type 2
	UV Stabilization	With/Without UV Stabilization

ANNEX-A
LIST OF TEST EQUIPMENTS

Major test equipment required to test the requirements of the Indian Standard.

Sr. No.	Tests used in with Clause Reference	Test Equipment
1.	Tapes – Width and Thickness (Cl. 4.2 and IS 6192/IS 11197)	Steel Rule / Vernier 0.1mm LC, Spring Loaded dial micrometer of 0.001mm LC & 140kN/m ² pressure
2.	Tapes – Linear Density Cl. 4.2 and IS 6192/IS 11197)	Weighing Balance 0.1mg accuracy, Drying Oven, Wrap Reel
3.	Tapes – Tenacity Cl. 4.2 and IS 6192/IS 11197)	Tensile testing machine with constant rate of extension, suitable clamps and facility to measure elongation
4.	Tapes – Elongation at point of rupture (Cl. 4.2 and IS 6192/IS 11197)	Tensile testing machine with constant rate of extension, suitable clamps and facility to measure elongation
5.	Tapes – Heat Shrinkage (HDPE) Cl. 4.2 and IS 6192/IS 11197)	Heat shrinkage test apparatus with water bath, specimen holder and lead in wire
6.	Tapes – Colour Fastness for pigmented tapes (Cl. 4.2 and IS 6192/IS 11197)	Xenon Arc lamp test apparatus, Geometric grey scale
7.	Tapes – Dimensional stability (PP) Cl. 4.2 and IS 6192/IS 11197)	Air circulating Oven
8.	Unlaminated Fabric Mass (Cl 4.2)	Weighing Balance 5mg accuracy, Steel Scale, Flat smooth table
9.	Mass of bale (Cl. 5.1)	Weighing Scale
10.	Dimensions [Cl. 5.2 and Table 1]	Scale, Flat smooth table
11.	Ends per dm [[Cl. 5.2 and Table 1]	Pick glass
12.	Picks per dm [Cl. 5.2 and Table 1]	Pick glass
13.	Mass of sack, [Cl. 5.2 and Table 1]	Weighing Balance,
14.	Average breaking strength of fabric [Cl. 5.2 and Table 1]	Tensile testing machine CRE with facility to record/indicate force and separation
15.	Breaking strength of bottom seam [Cl. 5.2 and Table 1]	Tensile testing machine with suitable clamps, stop watch, scale
16.	Elongation at break of fabric [Cl. 5.2 and Table 1]	Tensile testing machine CRE with facility to record/indicate force and separation
17.	Exposure to UV radiation ([Cl. 5.2 and Table 1]	Test Chamber with Fluorescent UV- lamps Type B with irradiance level 0.63W/m ² with facility for heating and condensation, Tensile testing machine CRE type
18.	Ash content [[Cl. 5.2 and Table 1]	Weighing Balance 1mg accuracy, Silica crucible, Bunsen Burner, Silica Triangle and Tripod, Muffle furnace, Desicator, Gloves, Crucible holder

19.	Conditioning of sample (Cl. 6)	Conditioning Chamber to maintain 27±2°C, 65±2% humidity
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The above list is indicative only and may not be treated as exhaustive

ANNEX – B

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 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 license shall be printed using suitable inks by flexography or gravure printing or stenciling on each sack and bale of HDPE /PP woven sacks; as the case may be, provided always that sacks in each bale to which this mark is thus applied conforms to every requirement of the specification.

Note: The words “for HDPE woven sack only” or “ for PP woven sack only” as applicable shall be printed beneath the standard mark conspicuously on each sack.

Marking and packing shall be done as per the provisions of the Indian Standard. In addition, the following information shall be given on each bale or the label attached to it:

a) Control Unit (or Batch) Number.

b) BIS website details i.e–“For details of BIS certification please visit www.bis.gov.in”

4. **CONTROL UNIT** – For the purpose of this scheme, All the HDPE/PP woven sacks of the same type having same construction produced under similar conditions 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 Standard 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	Recommended Levels of Control		
Cl.	Requirement	Test Methods Clause Reference			No. of Sample	Frequency	Remarks
4.1	Raw Material (HDPE/PP granules etc.)	4.1	IS 14968:2015	S	01	Each consignment	Conformity of the raw materials to the standard may be established through test certificate of supplier or test report of BIS
4.2	Fabric and Tape (excluding Linear Density/Denier, width of tapes, mesh and weight of fabric)	4.2	-do-	S	01	Each consignment	recognized/empanelled lab or test report of any other accredited lab or combination thereof. If materials are ISI marked, no testing is required.
4.2	Linear Density/Denier, width of tapes	4.2	-do-	R	04	Every 4 hours	<i>Applicable for manufacturers who manufacture tape and/or fabric in house</i>
		4.2	-do-	S	01	Each consignment of fabric	<i>Applicable for manufacturers who procure fabric from outside and don't have in house tape or fabric manufacturing facilities.</i> No testing is required if material is

							accompanied by supplier's test certificate or test report of NABL accredited/third party lab or is ISI marked
4.2	Mesh and Weight of Fabric	4.2	-do-	R	Manufacturer shall put in place adequate in process control/inspection to ensure conformity to the standard		
4.3	Sacks	4.3.1, 4.3.2	-do-	R	Manufacturer shall put in place adequate in process control/inspection to ensure conformity to the standard		
4.4	Liner Material	4.4	-do-	S	S	01	Conformity of the liner material to the standard may be established through test certificate of supplier or test report of BIS recognized/empaneled lab or test report of any other NABL combination thereof. If materials are ISI marked, no testing is required.
4.4	Liner construction (mass, width, length, freedom from defects)	4.4, 4.4.1	-do-	R	Manufacturer shall put in place adequate in process control/inspection to ensure conformity to the standard		
4.5	Capacity	4.5, 5.2	-do-	R	05	Each control unit	Manufacturer shall put in place adequate in process control/inspection to ensure conformity to the standard
5.1	Mass of Bale	5.1	-do-	R	Each Bale		-do-
5.2 & Table 1	i) Dimension	Annex B	-do-	R	30 sacks	Each Control Unit	-do-
	a) Inside length	Annex B	-do-	R	-do-	-do-	-do-
	b) Inside width	Annex B	-do-	R	-do-	-do-	-do-
	ii) Ends per dm	Annex B	-do-	R	-do-	-do-	-do-
	iii) Picks per dm	Annex B	-do-	R	-do-	-do-	-do-

	iv) Mass of Unlaminated Sack		IS 1964	R	-do-	-do-	-do-
	v) Mass of Sack with Liner		IS 1964	R	-do-	-do-	-do-
	vi) Average Breaking strength of fabric (Lengthwise and Widthwise)		IS 1969 (Part 1)	R	5 bags	-do-	
	vi) Minimum Breaking strength of bottom seam		IS 9030	R	-do-	-do-	
	vii) Elongation at break of fabric (Lengthwise and Widthwise)		IS 1969 (Part 1)	R	-do-	-do-	
	ix) Ash Content	Annex D	-do-	R	2 bags	Each Control Unit	
5.2	Retention of Breaking Strength after UV exposure for UV stabilized sacks	Annex C	IS 14968:2015	S	2 bags	Once in three months	Only required in case of UV stabilized sacks

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 by BO Head.