



उत्पाद मैनुअल

वस्त्रादी — 50 किग्रा सीमेंट पैकिंग हेतु, बुने हुए, लेमिनेटेड पोलीप्रोपाइलीन (पी.पी) से निर्मित
ब्लाक बॉटम वाल्व बोरिया — विशिष्टि

IS 16709: 2017 के अनुसार

PRODUCT MANUAL

Textiles — Polypropylene (PP) Woven, Laminated, Block Bottom Valve

Sacks for Packaging of 50 kg Cement —SPECIFICATION

ACCORDING TO IS 16709: 2017

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। दस्तावेज़ 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.	मानक संख्या IS No.	:	IS 16709: 2017
	शीर्षक Title	:	Textiles — Polypropylene (PP) Woven, Laminated, Block Bottom Valve Sacks for Packaging of 50 kg Cement —SPECIFICATION
	संशोधनों की संख्या No. of amendments	:	3
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	The material should be conforming to clause 5.1, 5.2 & 5.4 of IS 16709: 2017.
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Each variety to be drawn and tested to be included in the scope of licence.
c)	नमूने का परिमाण 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).
d)	परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर Parameters to be Declared in Test Request	:	i. Type ii. Mass of printed ink iii. Optional Requirements Note: This section indicates declared values to be specified against a parameter (in Test Requests) to enable testing of

		sample against the requirement and determine its conformity. Any other requirements/parameters may also be declared as per the standard, as applicable.
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	
	All tests are possible in a day (Pre conditioned 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:	
	IS 16709: 2017 के अनुसार मानक मुहर का उपयोग करनेके लिए लाइसेंस ननम्रलिखित कार्य क्षेत्र के लिए प्रदान ककया जाता है“Licence is granted to use Standard Mark as per IS 16709: 2017 with the following scope:	
	Name of the product	: Textiles — Polypropylene (PP) Woven, Laminated, Block Bottom Valve Sacks for Packaging of 50 kg Cement
	Type	: i. Air Permeability value Less than 100 m ³ /h ii. Air Permeability value between 100 to 110 m ³ /h iii. Air Permeability value between 111 to 120 m ³ /h iv. Air Permeability value between 121 to 130 m ³ /h v. Air Permeability value More than 130 m ³ /h
	Optional Requirements	: With/Without BOPP Lamination

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ANNEX-A

LIST OF TEST EQUIPMENTS

(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sl. No.	Tests Used In With Clause Reference	Test Equipment/Chemical
1	Mass of Sack and Bale, Clause 6.1	<u>CONDITIONED MASS METHOD:</u> – Horizontal Flat Smooth Table – Graduated Steel Scale – Balance — Capable of weighing to an accuracy of 0.005 g. <u>OVEN-DRY METHOD</u> – 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	Breaking strength of fabric and, Top and Bottom closures, Clause 6.2	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.
3	Dimensions, Clause 6.2	Measuring scale or measuring tape
4	Ends & Picks, Clause 6.2	Suitable gauge as per B-2 of Annex-B
5	Drop impact Strength, Clause 6.3	Drop Impact Tester as per Annex D of IS 16709
6	Ash Content, Clause 6.4	– 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
7	Air permeability, Clause 6.5	Air permeability testing equipment as per F-2 of Annex-F
8	Conditioning (Various clauses)	– Air Conditioner or Conditioning Chamber to condition samples at $27 \pm 2^\circ\text{C}$ and $65 \pm 2\%$ – Hygrometer – Thermometer

ANNEX-B 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 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. 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, 5.4	Raw materials	5.1, 5.4	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							
5.2	PP Tapes	5.2	IS 11197	S	One			
5.2	Mesh size	5.2	IS 16709	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.			
5.3	Sack	5.3						
5.4	Lamination	5.4						
5.5	Perforation	5.5						
5.6	Capacity	5.6						
6.2.1 and Table 1	Dimensions	6.2.1 and Table 1	Annex-B of IS 16709	R				
-do-	Ends and Picks per dm	-do-	Annex-B of IS 16709	R				

-do-	Mass of sack	-do-	IS 1964	R			
-do-	Breaking strength of Fabric	-do-	IS 1969(Part 1)	R	One	Each Control Unit	
-do-	Weld strength of top & bottom closure	-do-	IS 1969(Part 1) & Annex-C of IS 16709	R	One	Each Control Unit	
-do-	Elongation at break of fabric	-do-	IS 1969(Part 1)	R	One	Each Control Unit	
6.3	Drop impact Strength	6.3	Annex-D of IS 16709	R	Two	Each Control Unit	
6.4 and Table 1	Ash Content	6.4 and Table 1	Annex-E of IS 16709	R	One	Each Control Unit	
6.5 and Table 1	Air permeability at 50 mbar	6.5 and Table 1	Annex-F of IS 16709	R	One	Each Control Unit	