



www.bis.gov.in

उत्पाद मैनुअल

**SPECIFICATION FOR PVC COATED FABRICS FOR FOOTWEAR INDUSTRY
IS 8699: 1977 के अनुसार**

**PRODUCT MANUAL
FOR SPECIFICATION FOR PVC COATED FABRICS FOR FOOTWEAR INDUSTRY
ACCORDING TO IS 8699: 1977**

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 8699:1977
	शीर्षक Title	:	Specification For PVC Coated Fabrics For Footwear Industry
	संशोधनों की संख्या No. of amendments	:	NIL
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	Not Applicable 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.
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Each Type and Grade to be tested to cover that variety in the scope of licence. Further, if Sample with any surface finish(Embossed/Printed/Other surface Finish(to be declared)) is tested, Plain PVC Coated Fabric may also be included in the scope of licence.

c)	नमूने का परिमाण Sample Quantity	:	A full width sample of 3 m length 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. Grade iii. Surface Finish Note: Apart from the above, 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 to Annex-A
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer to Annex-B
5.	एक दिन में संभावित परीक्षण Possible tests in a day		
	• Appearance, • Colour, grain and finish, • Thickness of coated fabric, • Colour fastness to dry and wet rubbing, • Usable Width, • Total Mass 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 8699:1977 with the following scope:		
	Name of the product	PVC Coated Fabrics for footwear Industry	
	Type	TypeA/TypeB	
	Grade	Grade1/2/3/4	
	Surface Finish	Plain/Embossed/Printed/Other surface Finish(to be declared)	

ANNEX A

LIST OF TEST EQUIPMENTS

(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sr. No	Tests used in with Clause Reference	Test Equipment
1	Appearance (CI 4.2, CI 4.5)	➤ Flat illuminated surface
2	Colour, grain and finish (CI 4.3)	➤ Standard or reference patterns ➤ Daylight
3	Thickness of coated fabric (Table 1 and Table 2)	➤ Thickness gauge
4	Resistance to cold (CI 4.4.1)	➤ Cooling Chamber ➤ Steel pin having 6mm diameter ➤ Stop watch
5	Color fastness to dry and wet rubbing, Adhesion of print (CI 4.4.2, CI 4.6)	➤ Test apparatus as per figure 1 of Annex C of IS 1259 which consists of abrading member as per figure 2 of Annex C of IS 1259. ➤ Bleached white cotton fabric as per variety No. 1 of IS 177 ➤ Cotton wool ➤ Glass plate ➤ Dead Weight (500g) (2 kg) (250g) ➤ Soap solution as per Type 1 of IS 285 ➤ Sodium carbonate ➤ Normal water
6	Color fastness to daylight (CI 4.4.3)	➤ Grey Scale ➤ Aluminum Foil ➤ Normal water ➤ Wooden box as per Annex D of IS 1259 fitted with wire mesh 0.315 mm thickness ➤ Blue wool reference sample as prescribed in IS/ISO 105-B01
7	Resistance to heat and loss of mass of coating on heating (CI 4.4.4)	➤ Hot air oven ➤ Methyl Ethyl Ketone ➤ Weighing scale ➤ Stop watch
8	Stability at Vulcanization Temperature (CI 4.4.5)	➤ Hot air oven ➤ Wire Mesh ➤ Stop watch

9	Resistance to Gelling (CI 4.5)	➤ Stainless Steel Plate 2mm thick ➤ Glass beaker ➤ Acetone ➤ Stop watch
10	Adhesion on Print (CI 4.6)	➤ F-1.1 Apparatus as given in C-1.1 of IS 1259. ➤ F-1.2 Abrading Member — Apparatus as given in C-1.2 of IS 1259. ➤ F-1.3 White Cotton Fabric — The bleached cotton fabric shall correspond to variety No. 1 of IS 177. ➤ Soap conforming to Type 1 of IS 285.
11	Adhesion of coating (CI 4.7)	➤ A constant rate of traverse (CRT) machine, as described under class B in accordance with ISO 5893, or a constant rate of elongation (CRE) machine (class 1 in accordance with ISO 7500-1) ➤ Hot Air Oven
12	Usable Width (Table 1 and Table 2)	➤ Measuring tape ➤ Flat Table ➤ Humidity chamber
13	Total mass of coated fabric (Table 1 and Table 2)	➤ Measuring tape ➤ Flat Table ➤ Humidity chamber ➤ Angle Protractor ➤ Steel Scale ➤ GSM Cutter
14	Breaking strength (Table 1 and Table 2)	➤ Constant rate of extension (CRE) tensile testing machine as per clause 5.1 of IS 7016 (PART 2) ➤ Clamping device as per clause 5.2 of IS 7016 (PART 2) ➤ Equipment for cutting test pieces and fraying them down to the required width ➤ Equipment in which the test pieces can be immersed in water prior to wet testing ➤ Distilled or deionized water, for wetting out the test pieces. ➤ Wetting agent or surfactant. ➤ Steel Scale ➤ Humidity chamber
15	Resistance to damage by flexing (Table 1 and Table 2)	➤ Steel Scale ➤ Test apparatus as per method A of IS 7016 part 4 or De Mattia Flex Tester ➤ Magnification Glass (X5) ➤ Humidity Chamber

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: PVC Coated Fabric Rolls of particular Type and grade manufactured under similar conditions with same raw material 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/empaneled 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 the outer end of each roll of PVC Coated Fabric, 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 the outer end of each roll of PVC Coated Fabric:

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)

Column (1) Test Details				Column (2)	Column (3)		
Cl.	Requirement	Test	Method	Test equipment requirement R: required (or) S: Sub-contracting permitted	No. of Sample	Frequency	Remarks
		Clause	Reference				
4.2	Appearance	4.2	IS 8699	R	1	Each Control unit	
4.3	Colour, grain and finish	Annex A	IS 1259	R	1	Each Control unit	
4.4.1	Resistance to cold	4.4.1	IS 8699	R	1	Each Control unit	
4.4.2	Colour fastness to dry and wet rubbing	Annex C	IS 1259	R	1	Each Control unit	
4.4.3	Colour Fastness to light	Annex D	IS 1259	S	1	Once in 6 months	
4.4.4	Resistance to heat and loss of mass on heating	Annex B	IS 1259	S	1	Once in a month	
4.4.5	Stability at Vulcanization Temperature	4.4.5	IS 8699	R	1	Each Control unit	
4.5	Resistance to Gelling	4.5	IS 8699	R	1	Each Control unit	

4.6	Adhesion of Print	Annex F	IS 1259	R	1	Each Control unit	Applicable for Printed PVC Coated Fabrics
4.7	Adhesion of Coating	--	IS 7016 (Part 5)	R	1	Each Control unit	
Table 1 and Table 2	Usable Width	3	IS 7016 (PART 1/SEC 1)	R	1	Each Control unit	
-do-	Total Mass	--	IS 7016 (PART 1/SEC 1)	R	1	Each Control unit	
-do-	Breaking Strength	---	IS 7016 (Part 2)	R	1	Each Control unit	
-do-	Resistance to damage by flexing	--	IS 7016 (Part 4)	S	1	Once in a month	Method 1 of IS 7016 (Part 4) to be used for testing.
-do-	Thickness	--	IS 7016 (PART 1/SEC 1)	R	1	Each Control unit	