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उत्पाद मैनुअल
रबड़ तले के कैनवास जूते
IS 3735: 1996 के अनुसार

PRODUCT MANUAL
FOR CANVAS SHOES, RUBBER SOLE
ACCORDING TO IS 3735: 1996

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.	:	3735: 1996
	शीर्षक Title	:	रबड़ तले के कैनवास जूते Canvas Shoes, Rubber Sole - Specification
	संशोधनों की संख्या No. of amendments	:	05
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	Material to conform to Cl 4.1 (Material) of IS 3735:1996 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	:	One sample of any size from each type (Type 1/ Type 2) shall be tested to cover shoes of all sizes, subject to availability of testing and manufacturing facilities / capabilities

c)	नमूने का परिमाण Sample Quantity	:	3 Pairs. Components to be provided separately if required 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 (incase of market surveillance, effort may be made to procure therequired 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-A
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer to Annex-B Note: Please see Cl. 5 of the SIT for Applicability of SIT for Small and Micro Scale Enterprises
5.	एक दिन में संभावित परीक्षण Possible tests in a day (on pre- conditioned samples as applicable)		
	1. Binding Material, Cl 4.1.2 2. freedom from sulphur dyes, Cl 4.1.2.1, freedom from sulphur dyes (Laces), Cl 4.1.5 3. Eyelets, Cl 4.1.4 4. Laces (General), Cl 4.1.5 5. Breaking Strength (Laces), Cl 4.1.5 6. Relative density, Sl i) Cl 4.1.6, 7. Hardness Shore A, Sl ii) Cl 4.1.6, 8. Change in Initial Hardness, Sl iv) Cl 4.1.6, Table 4 9. Tensile strength, Elongation at break, Sl v)& Sl vi) Cl 4.1.6, Sl i)&Sl ii), Cl 4.1.6.2, 10. Shape & Design, Cl 4.2 11. Construction, Cl 4.3 12. Adhesion test, Cl 4.4 13. Consolidation test, Cl 4.5 14. Mass, Cl 4.6 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 readyreference 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 3735:1996 के अनुसार मानक मुहर का उपयोग करने के लिए लाइसेंस निम्नलिखित कार्यक्षेत्र के लिए प्रदान किया जाता है “Licence is granted to use Standard Mark as per IS 3735:1996 with the followingscope:		
	Name of the product	रबड़ तले के कैनवास जूते Canvas Shoes, Rubber Sole	
	Type	Type1/Type 2	

	Sizes	To be declared
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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
1.	Breaking load, (Overlayer) SI i), Breaking load, (Inner Layer), SI ii) CI 4.1.1 & Table 1 (warp/weft) [IS 1969:Part 1]	constant-rate-of-extension (CRE) machine as per IS 1969:Part 1, Equipment, for cutting test specimens and for fraying, arrangement for standard atmospheric condition
2.	Breaking load, (Overlayer) SI i), Breaking load, (Inner Layer), SI ii) CI 4.1.1 & Table 1 (Ends/picks) [IS 1963]	Conditioning chamber, arrangement for standard atmospheric condition, thread counter (Method A, as per CI 5.1 of IS 1963)/ clams and forceps (method B, as per IS 1963)
3.	Colour Fastness to daylight, CI 4.1.1.1 [IS/ISO 105-B01 or IS/ISO 105-B02]	<u>IS/ISO 105-B01</u> Exposure rack, opaque cardboard, grey scale, instruments for determining climatological data as per CI 4.2 of IS IS/ISO 105-B01 : 2014, references (blue wool) <u>IS/ISO 105-B02</u> Laboratory exposure devices as per 5.2 of IS/ISO 105-B02:2014. Black –standard thermometer/black-panel thermometer, humidity controller, Covers, Colour matching lamps, Assessment cabinet, Sample mounting card, Assessment mask, Grey scale for assessing change in colour, blue wool reference material (CI 5.1) water of quality Grade 3 minimum in accordance with ISO 3696
4.	Color Fastness to mechanical washing (mild), CI 4.1.2.2 [IS/ISO 105-C10.]	mechanical laundering device as per CI 4.1 of IS/ISO 105-C10: 2006, balance, mechanical stirrer, Non-corrodible (stainless) steel balls, hot plate, soap as per CI 5.1 of the IS, sodium carbonate, soap solution, grade 3 water, adjacent fabric, non-dyeable fabric, Grey scales/spectrophotometer, balance, oven (for drying)
5.	Colour fastness to day light (cotton tapes), CI 4.1.2.1 [IS/ISO 105-B01]	Exposure rack, opaque cardboard, grey scale, instruments for determining climatological data as per CI 4.2 of IS IS/ISO 105-B01 : 2014, references (blue wool)
6.	Color Fastness to mechanical washing, CI 4.1.2.1 [IS 764]	mechanical laundering device as per CI 4.1 of IS/ISO 105-C10: 2006, balance, mechanical stirrer, Non-corrodible (stainless) steel balls, hot plate, soap as per CI 5.1 of the IS, sodium carbonate, soap solution, grade 3 water, adjacent fabric, non-dyeable fabric, Grey scales/ spectrophotometer, balance, oven (for drying)
7.	freedom from sulphur dyes, CI 4.1.2.1, freedom from sulphur dyes (Laces), CI 4.1.5 [Annex B, IS 3735:1996]	Alkaline hydrosulphite solution, Stop watch, Hot plate, Test tube Stannous chloride solution, Lead acetate solution, Filter paper
8.	Eyelets, CI 4.1.4 [IS 3735:1996]	Vernier caliper
9.	Breaking Strength (Laces), CI 4.1.5 [Annex K, IS 15844 (Part 1)]	A tensile testing machine as per Annex K of IS 15844 (Part 1), – distilled or deionized water, conditioning chamber,
10.	Relative density, SI i) CI 4.1.6, Table 4 [Annex C, IS 10702]	Balance (LC-1 mg), Balance straddle, Beaker (250 ml), Copper wire, oven, sinker, cutting device
11.	Hardness Shore A, SI ii) CI 4.1.6, Table 4 [IS 3400 (Part 23/sec 2)]	IRHD pocket hardness meter as per CI 4.1 of IS 3400 (Part 23/Sec 2), thickness guage, scale, conditioning chamber

12.	Flexing resistance (Initial crack/cut growth), SI iii) CI 4.1.6, Table 4 [IS 3400 (Part 16)]	Ross flexing machine as per IS 3400 (Part 16), piercing tool and holder, rule, thickness guage, soap, conditioning chamber, cold chamber, arrangement to maintaining temp of 27 +/- 2
13.	Change in Initial Hardness, SI iv) CI 4.1.6, Table 4 [IS 3400 (Part 4 and IS 3400 (Part 2/sec 2)]	Air oven as per CI 4 of IS 3400 (Part 4) : 2012, apparatus as per CI 5 of IS 3400 (Part 2/Sec 2), thickness guage, arrangement for standard atmospheric condition
14.	Tensile strength, Elongation at break, SI v) & SI vi) CI 4.1.6, Table 4, SI i) & SI ii), CI 4.1.6.2, Table 5 [IS 3400 Part 1]	Dies and cutters, thickness guage, cone guage, tensile testing machine as per 7.4 of IS 3400 Part 1, (oven in case of ageing)
15.	Construction, CI 4.3 [IS 3735:1996]	Vernier calliper
16.	Adhesion test, CI 4.4 [IS 3400 (Part 5) or Annex C of IS 3735:1996]	<u>IS 3400 (Part 5)</u> Vernier calliper, arrangement for standard atmospheric condition <u>STATIC DEAD LOAD METHOD</u> supporting frame, testing clamps, mandrels, calibrated weights, and weight carriers, cutting tool, Steel scale
17.	Consolidation test, CI 4.5 [4.5, IS 3735:1996]	<u>IS 3400 (Part 5)</u> Vernier calliper, arrangement for standard atmospheric condition <u>STATIC DEAD LOAD METHOD</u> supporting frame, testing clamps, mandrels, calibrated weights, and weight carriers, cutting tool, Steel scale
18.	Mass, CI 4.6 [4.6, IS 3735:1996]	Weighing Scale

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 : 50,000 pairs or Fortnight production (whichever is earlier), of the same variety, manufactured from the same raw material

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 each shoe for each pair of shoe provided always 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 (through tags/stickers or otherwise) with the following additional requirement on the package/Product:

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.

5. Applicability of SIT for Small and Micro Enterprises (SMEs):

5.1 Compliance to the Scheme of Inspection and Testing is OPTIONAL for Micro, and Small Scale Units with respect to the requirements for Clause 1 (Quality Assurance Plan), Clause 2 (Ensuring Compliance through Testing). However, ALL units shall ensure compliance of their products to the requirements of the Indian Standard.

5.2 The requirements of SIT with respect to Clause 3 (Packing and Marking) and Clause 4 (Rejection) shall be followed by all.

TABLE 1
(ONLY FOR GUIDANCE PURPOSE)

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
4.1.1 & Table 1	Requirements for Over Layer and Inner Layer Fabric						
i)	Breaking load, (Overlayer) a) warp b) weft	-	IS 1969:Part 1	S	one	Each consignment of material or Test Certificate from supplier/ Manufacturer	
	c) Ends d) picks/dm	-	IS 1963	-do-	-do-		
ii)	Breaking load, (Inner Layer) a) warp b) weft	-	IS 1969:Part 1	-do-	-do-		
	c) Ends d) picks/dm	-	IS 1963	-do-	-do-		
4.1.1.1	Colour Fastness to daylight	-	IS/ISO 105-B01 or IS/ISO 105-B02	S	-do-		
4.1.2.2	Color Fastness to mechanical washing (mild)	-	IS/ISO 105-C10.	S	-do-		
4.1.2	Binding Material	4.1.2	IS 3735:1996	R	Manufacturer shall maintain adequate inspection and in process control, to ensure product meets specified requirements and maintain test records		
4.1.2.1	Colour fastness to day light (cotton tapes)	-	IS/ISO 105-B01	S	one	Each consignment of material or Test Certificate from supplier/ Manufacturer	
	Color Fastness to mechanical washing	-	IS 764	S	-do-	Color Fastness to mechanical washing for Type 2 is recommended as 2 or better	

	freedom from sulphur dyes	Annex B	IS 3735:1996	R	-do-	Each consignment	a) Applicable for black tapes b) Type 1 only
4.1.4	Eyelets	4.1.4	-do-	R	Manufacturer shall maintain adequate inspection and in process control, to ensure product meets specified requirements and maintain test records		
4.1.5	Laces General	4.1.5	-do-	R			
	Breaking Strength	Annex K	IS 15844 (Part 1)	R	one	Each consignment	
	freedom from sulphur dyes	Annex B	IS 3735:1996	R	-do-	-do-	a) Applicable for black tapes
4.1.6, Table 4	Physical Requirements for Rubber Components						
i)	Relative density	Annex C	IS 10702	R	-do-	Each Consignment	
ii)	Hardness Shore A	-	IS 3400 (Part 23/sec 2)	-do-	-do-	-do-	
iii)	Flexing resistance a) Initial crack, b) cut growth, percent	-	IS 3400 (Part 16)	-do-	-do-	-do-	
iv)	Change in Initial Hardness	-	IS 3400 (Part 4 and IS 3400 (Part 2/sec 2)	-do-	-do-	-do-	
v)	Tensile strength	-	IS 3400 Part 1	R	-do-	-do-	
vi)	Elongation at break	-	IS 3400 Part 1	-do-	-do-	-do-	
4.1.6.1	The pattern and design (of rubber soles)	4.1.6.1	IS 3735:1996	R	Manufacturer shall maintain adequate inspection and in process control, to ensure product meets specified requirements and maintain test records		pattern and design of rubber soles as agreed to between the purchaser and the supplier
4.1.6.2, Table 5	Change in Physical Requirements for Rubber Soles After Ageing						
i)	Tensile strength	-	IS 3400 Part 1	R	One	Each Consignment	
ii)	Elongation at break	-	IS 3400 Part 1	R	-do-	-do-	
4.2	Shape & Design	4.2.1	IS 3735:1996	R	Manufacturer shall maintain adequate inspection and in		

4.3	Construction	4.3.1 to 4.3.8	IS 3735:1996	R	process control, to ensure product meets specified requirements and maintain test records		
4.4	Adhesion test	4.4	IS 3400 (Part 5) or Annex C of IS 3735:1996	R	One	Each Control Unit	
4.5	Consolidation test	4.5	IS 3735:1996	R	-do-	-do-	
4.6	Mass	4.6	IS 3735:1996	R	-do-	-do-	