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उत्पाद मैनुअल

खेल के जूते भाग 2 - परफॉरमेंस खेल के लिए जूते

IS 15844 पार्ट- 2 : 2023 के अनुसार

**PRODUCT MANUAL FOR
Sports Footwear Part 2 Performance Sports Footwear
ACCORDING TO IS 15844 Part 2: 2023**

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 15844 (Part 2): 2023
	शीर्षक Title	:	खेल के जूते भाग-2 पेशेवर खेल के लिए जूते SPORTS FOOTWEAR PART -2 PERFORMANCE SPORTS FOOTWEAR
	संशोधनों की संख्या No. of amendments	:	01
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	Declaration for raw material of components to be submitted : manufacturer 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	:	कृपया Annex-A देखें Please see Annex – A
c)	नमूने का परिमाण Sample Quantity	:	4 Pairs of shoes for each variety. (3 pairs of shoes for physical testing and one pair for Chemical analysis.). Components to be provided separately if samples for testing cannot be taken out from the product 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 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	:	1. Upper 2. lining 3. In sock 4. sole 5. Heel drop 6. Counter stiffener 7. Size and fittings 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	:	कृपया Annex-B देखें Please see Annex – B
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	कृपया Annex-C देखें Please see Annex – C Note: Please see Cl. 5 of the SIT for Applicability of SIT to Small and Micro Scale Enterprises
5.	एक दिन में संभावित परीक्षण Possible tests in a day		
	Design Cl 5, Size and fittings Cl 6, Whole Footwear Cl 7, toe spring Cl 7.1.1, Upper to Mid Sole /Out Sole Bond Performance Cl 7.1.2, Upper to Composite Sole Bond Performance Cl 7.1.3, Out Sole to Mid Sole (Multilayer) Bond Performance Cl 7.1.4, Heel drop Cl 7.1.9, Tear strength Cl 7.2, table 2 Sl ii), Stitch Tear strength Cl 7.2, table 2 Sl v), Tensile Strength Cl 7.2, table 2 Sl Vii), Elongation at break, Cl 7.2, table 2 Sl viii), Breaking strength Cl 7.2 table 3 Sl i), Elongation at break, Cl 7.2 table 3 Sl ii), Tear strength Cl 7.2 table 3 Sl iii), Tear strength Cl 7.3, table 4 Sl i), Thickness Cl 7.4, table 5 Sl i), Thickness Cl 7.5, table 6 Sl i), Tear Strength Cl 7.6, table 7 Sl iv), Tensile Strength Cl 7.6, table 7 Sl v), Elongation at break, Cl 7.6, table 7 Sl vi), Compression set Cl 7.6, table 7 Sl vii), Compression set Cl 7.7, table 8 Sl i), Split tear strength Cl 7.7, table 8 Sl ii), Heat shrinkage Cl 7.7, table 8 Sl iii), Elongation at break, Cl 7.7, table 8 Sl iv), Peel strength Cl 7.8, table 9 Sl v), Peel strength Cl 7.9, table 10 Sl i), Breaking strength of lace Cl 7.11, table 12 Sl i), Lace tag strength Cl 7.11, table 12 Sl ii), Lace to lace abrasion Cl 7.11, table 12 Sl iii), Strength of Buckle/Ski hook Cl 7.11, table		

	12 SI v), Corrosion resistance CI 7.11, table 12 SI vi)- on conditioned samples as 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 15844 Part 2: 2023 के अनुसार मानक मुहर का उपयोग करने के लिए लाइसेंस निम्नलिखित काययक्षेत्र के लिए प्रदान ककया जाता है Licence is granted to use Standard Mark as per IS 15844 Part-2: 2023 with the following scope:			
	उत्पाद का नाम Name of the product	Sports Footwear खेल के जूते		
	Specification			
	Materials of various parts	S.No	Part of Footwear	Materials (as applicable)
		i)	upper	A. Leather B. Coated Fabric/Textile/combinatio n C. Combination of A and B
		ii)	Insock	With/without
		iii)	insole	With/without
		iv)	sole	Normal/composite Single layer/ Multilayer
			a) Outsole	Cellular/Solid PU/other
			b) Midsole	With/without EVA/ other material
		v)	Lining	With/without
		vi)	Counter stiffener	With/without
		vii)	Heel drop	Zero drop/ Low drop/ Mid drop/ High drop (to be declared)
		ix)	Size and fittings	Sizes as per IS 1638 (to be declared)

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ANNEX A
GROUPING GUIDELINES
PROFESSIONAL SPORTS FOOTWEAR TO IS 15844 P-2: 2023

1. As per the Indian Standard, based on material, Sandals and slippers can be categorized on the basis of the following:

- a) Specification:
b) Material: Combination as given below-

Upper	A. Leather B. Coated Fabric/Textile/ combination C. Combination of A & B	Each upper material form (A, B and C) may be tested. In case of PU Coating on Fabric/Textile or on the combination, testing of the requirement of Hydrolysis resistance shall be ensured In case, in any combination, upper comes in direct contact with foot, compliance of upper to the chemical requirement for that variety shall be ensured.
lining	With/without	If shoe with lining is tested, shoes without lining may be covered. However, in such case, compliance to chemical requirement of the component coming in contact with foot in absence of lining for that variety shall be ensured.
Insock	With/without	If shoe with insock is tested, shoes without insock may be covered. However, compliance to chemical requirement of the component coming in contact with foot for that variety shall be ensured.
insole	With/without	If shoe with insole is tested, shoes without insole may be covered. However, compliance to chemical requirement of the component coming in contact with foot in absence of insock for that variety shall be ensured.
Sole	Normal/composite Single layer/ Multilayer	If composite sole is tested, normal sole may be covered If multilayered sole is tested, single layered may be covered
a) Outsole	PU/other Cellular/Solid	If Outsole of PU is tested, Outsole of other material may be covered Both the variety to tested separately to be covered in the scope
b) Midsole	With/without EVA/ other material	If shoe with midsole is tested, shoes without mid sole may be covered If midsole with EVA is tested, shoes with midsole of other material may be covered
Counter stiffener	With/without	If shoe with Counter stiffener is tested, shoes without Counter stiffener may be covered

2. For considering grant of licence/inclusion of varieties, **one sample of** each combination of materials of different parts of footwear of any size shall be drawn and tested to cover that combination of materials as per the grouping guideline.

3. However, if certain materials have already been tested (and footwear made from these materials already covered in the scope of licence on that basis), new varieties of footwear may be added in the scope of licence without chemical testing of those materials which have already been tested before, provided that there is no change in the type/nature of the material and/or the source of material. In such cases, the manufacturer seeking relaxation from chemical testing for certain materials, shall declare that there is no change in the type/nature and/or the source of the materials already tested
4. Any change in combinations of components of footwear not having effect either on the scope of Licence or which does not elicit any testing of the footwear of that combination as per above grouping guideline, shall be informed to BIS by Licensee.
5. However, while considering grant of licence/inclusion of additional variety, it shall be ensured that the applicant/licensee has got the complete manufacturing and testing facilities for all the sizes and variety intended to be covered.
6. During operation of the licence, BOs shall ensure that all the samples are tested for all applicable requirements on the product, and sizes/varieties covered in the licence are tested in rotation.

ANNEX – B

LIST OF TEST EQUIPMENTS

(INDICATIVE LIST, FOR GUIDANCE ONLY)

SI no	Test with Clause reference	Equipment
1	Size and fittings Cl 6	lasts for the different sizes
2	Upper to Mid Sole /Out Sole Bond Performance - Cl 7.1.2, Upper to Composite Sole Bond Performance - Cl 7.1.3, Out Sole to Mid Sole (Multilayer) Bond Performance - Cl 7.1.4, Peel strength - 7.8, table 9 SI No v)	Tensile testing machine with a chart recorder, clamping jaws for tensile tester, razor or sharp knife, steel scale, sample press, humidity chamber, air circulating oven
3	Energy Absorption at Seat Region - Cl 7.1.5	Test equipment, capable of measuring compressive force up to 6 000 N, Test punch as per Cl 5.14.1 of IS 15298 Part 1
4	Complete Shoe Flexing - Cl 7.1.6	As per IS 8085(Part 16)/ISO 24266 ' (Method A)
5	Washability - Cl 7.1.7	As per IS 8085(Part 15)/ISO 19954
6	Slip Resistance - Cl 7.1.8	A slip resistance test machine incorporates as per E- 4.1 of Annex E, wht a secure attachment point, Dry, absorbent paper towel, conditioning chamber and arrangement to maintain room temperaure at 27+2 °C and requirements as per Annex N
7	heel drop, Cl 7.1.9, toe spring - Cl 7.1.1	vernier calliper, Scale
8	Flexing resistance -table 2 SI No i)	Apparatus for measurement of flexing endurance of leather as per IS 5914 (Part6/Sec1)/ISO 5402-1
9	Tear strength -table 2 SI No ii)	Tensile testing machine as per 3.2 of LP:7 of IS 5914:1970, press knife as per 3.1 of LP:7 of IS 5914:1970, conditioning chamber
10	Colour Fastness rubbing -table 2 SI No iii), 7.11, table 12 SI No iv), 7.3, table 4 SI No iv)	Rub fastness test apparatus, Rubbing material, vacuum-desiccator, Vacuum pump, Demineralized water grade 3, Grey scale for assessing change in colour, Grey scale for assessing staining
11	Water vapour permeability and Water Vapour Coefficient -table 2 SI No iv), table 3 SI No vi), 7.3, table 4 SI No v)	Permeability Appts as per cl 6.6 & 6.8 of IS 15298 (Part-1), Jars or Bottles, Holder, Fan, Silica Gel, Mesh, Conditioning Chamber, Oven, Balance, Stop Watch, Vernier Caliper, Flexometer as per Cl. 6.6.2.8 of IS 15298 (Part 1), Circular Metal Container with impermeable material as per Cl 6.7.2.1 of IS 15298 (Part 1), Hygrometer, Thermometer, arrangement for having a conditioning atmosphere of (27 ± 2) °C, (65 ± 5) % RH
12	Stitch Tear strength -table 2 SI No v)	metal wire, punch, testing machine as per 3.3 of LP 8 of IS 5914

13	Colour Fastness to light -table 2 SI No vi) table 3 SI viii)	Laboratory exposure devices as per 5.2 of IS/ISO 105-B02:2014. Black –standard thermometer/black-panel thermometer, 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
14	Tensile strength and elongation, 7.2, Table 2 (vii) and (viii)	Tensile tester as per 5914 (Part 8)/ISO 3376
15	water absorption and penetration CI 7.2, table 2 ix)	Test apparatus as per 6.13 .2 of IS 15298 Part 1, clamps, absorbent cloth, metallic plate, balance LC 0.001g, clock (LC 1min)
16	Breaking strength -table 3 SI No i)	Constant rate of extension (CRE) tensile testing machine, Clamping device, Equipment for cutting test pieces and fraying them down to the required width, arrangement for maintaining test temperature of 27 degree centigrade
17	Elongation at break, -table 3 SI No ii)	Constant rate of extension (CRE) tensile testing machine, Clamping device, Equipment for cutting test pieces and fraying them down to the required width, arrangement for maintaining test temperature of 27 degree centigrade
18	Tear strength -table 3 SI No iii)	Constant rate of extension (CRE) tensile testing machine with autographic recorder as per CI 4.1 of IS 7016 (Part 3/Sec 1),
19	Strength at needle perforation, table 3 SI iv), Needle Strength - 7.10, table 11 SI No ii)	tensile testing machine as per 4 of IS 8085 (Part 13)/ISO 17697, press knife, needles
20	Flexing resistance,	as per IS 8085 (Part 20)/ISO 17694
21	Hydrolysis resistance -table 3 SI No vii)	as per IS 15298 (Part 1) (Annex B of ISO 5423:1992, after preparing and conditioning in accordance with Annex E of ISO 5423:1992)
22	Bursting Strength -table 3 SI No ix)	Bursting tester as per 6.1 of IS 1966 (Part 2),
23	Tear strength - 7.3, table 4 SI No i)	ISO 3377-2 for leather; — ISO 4674-1:2003, method B, for coated fabric and textile.
24	Abrasion resistance - 7.3, table 4 SI No ii) CI 7.2, table 2 ix)	Abrasion Machine as per cl. 6.12.2.1 of IS 15298 (Part 1), Reference Abradant Pad, Backing, Fabric Punch, Weight, Specimen Holder, Abrading Base, Balance, Conditioning Chamber, Dial Gauge, Filler Gauge, Woven felt, Hygrometer, Arrangement for maintaining test condition of (27 ± 2) °C and (65 ± 5) % RH, Thermometer.
25	Colour fastness to rubbing (crocking), - 7.3, table 4 SI No iii)	apparatus as per 4.1 of ISO 105-X12, Cotton rubbing cloth, Soft-back waterproof abrasive paper, Grey scale

26	Thickness - 7.5, table 5 & 6 SI No i),	graduated eyepiece with 0,1 mm scale graduations
27	Flexing index - 7.5, table 5 SI No ii)	A flexing machine with attachments as per F-2.1 of Annex F, tongue wrench, conditioning chamber, arrangement to maintain atmosphere surrounding the test machine at a temperature of $(27 \pm 2)^{\circ}\text{C}$ and a relative humidity of 65 ± 2 percent,
28	Abrasion resistance - 7.5, table 6 SI No ii) and 7.4, table no 5 SI No iii)	Finger Abrasion Tester as per cl. 7.3.2.1 IS 15298 part 1, Wool pads, Abradant fabric, Conditioning Chamber, Distilled Water, other details as per cl. 7.3 of IS 15298 (part 1).
29	Water Absorption and Water Desorption - 7.5, table 6 SI No iii), table 6 SI No iv)	Water Absorption & Desorption Tester as per 7.2.2 of IS 15298 part 1, Brass Roller, Platform, Clamp (D) and clamp € IS 15298 part 1, Cotton gauge, Water Supply through flow meter, Press Knife, Balance, Clock, Silicone grease
30	heat shrinkage - 7.5, table 6 SI No iv), 7.7, table 8 SI No iii)	Air-circulating oven, capable of maintaining a temperature of $70.0 \pm 1.0^{\circ}\text{C}$, Steel scale, with LC of 0.5 mm, vernier calliper (LC of min 0.1 mm), arrangement to maintain temperature at $27.0 \pm 2.0^{\circ}\text{C}$, stop watch
31	Abrasion resistance - 7.6, table 7 SI No i)	abrasion machine as per 5.1 of IS 3400 (Part 3), abrasive sheet, Hollow drill, balance, standard reference compounds. Conditioning chamber, arrangement for keeping ambient temperature, standard reference compounds
32	Flexing resistance - 7.6, table 7 SI No ii)	Flexing machine as IS 8085 (Part 4), Polyurethane adhesive system, sharp knife or scalpel, Smooth-surfaced hand tool, a hot air gun or an oven set at 50°C , Heat sensitive crayons, Primers, T square, A thin strip of metal with a length scale or stepped thickness flexing machine, (D 3, Figure 1) of Annex D, vernier callipers, chisel thermometer with LC of 1°C , thickness guage
33	Hydrolysis resistance - 7.6, table 7 SI No iii)	Micrometer, Oven Dessicator Flexing machine (as per Annex C of ISO 5423) in a refrigerated cabinet Piercing chisel Cutting/buffing machine to reduce the thickness of the test piece, Condition chamber
34	Tear Strength - 7.6, table 7 SI No iv)	Micrometer, dial guage, optical projection apparatus, tensile testing machine as per 4.4 of IS 3400 Part 12, dies, arrangement for maintaining room temp at 27 ± 2
35	Tensile Strength and elongation at break - 7.6, table 7 SI No v), 7.6, table 7 SI No vi), 7.7, table 8 SI No iv)	Dies and cutters, thickness guage, cone guage, tensile testing machine as per 7.4 of IS 3400 Part 1

36	Compression set - 7.6, table 7 SI No vii), 7.7, table 8 SI No i)	Method A thickness guage with means for application of pressure, platen press, rigid spacer plates and rotating circular cutter as per G-1.3 of Annex G, oven for maintaining temp at $(23 \pm 2) ^\circ\text{C}$ or $(20 \pm 2) ^\circ\text{C}$, a band knife splitter or a surface grinder. Stop watch, thickness guage Method B compression apparatus as per G-2.1.1 conditioning chamber, thickness guage
37	Split tear strength - 7.7, table 8 SI No ii)	Tensile Testing Machine, with chart recorder as per Annex H, Clamping Jaws, preferably rubber-faced, sharp blade
38	i)Resilience Moisture resistance a) Initial dry area shape retention b) Area shape retention after 10th collapse, dry Resilience 7.8, table 9 SI no ii), Moisture resistance 7.8, table 9 SI no iii), Initial dry area shape retention 7.8, table 9 SI no iv), Area shape retention after 10th collapse, dry 7.8, table 9 SI no	Test apparatus for counter stiffener as per Annex A of IS 7554:2009: Dome forming tool, press, cutting device, electric fan, PE sheet, fan assisted oven, heat resistant gloves, acetone, silicone based release agent, two part metal mould, hydraulic press, steam source, tongs, height gauge, thickness gauge, tensile testing machine, compression cage, manual compression device, distilled water, conditioning chamber
39	Peel strength - 7.9, table 10 SI No i)	Tensile Testing Machine as per 5.1 of IS 8085 (Part 18)/ISO 22777, roller device, fork, touch and close cycling machine as per 5.2, 5.3 and 5.4 solvent like acetone etc. as per Annex B of IS 7554 : 2009
40	Shear strength - 7.9, table 10 SI No ii)	Tensile testing machine as per ISO 22667, roller device, fork as per 5.3 of ISO 22776
41	Limit of useful extension - 7.10, table 11 SI No i)	as per IS 8085 (Part 12)/ISO 10765
42	Breaking strength of lace - 7.11, table 12 SI No i)	A tensile testing machine as per Annex K, conditioning chamber,
43	Lace tag strength - 7.11, table 12 SI No ii)	Tensile strength testing machine as per L-1 and Slotted Plate as per L-1.2 of Annex L
44	Lace to lace abrasion - 7.11, table 12 SI No iii)	as per IS 8085 (Part 17)/ISO 22774
45	Colour fastness to water for lace 7.11 Table 12 SI No iv)	IS 6191 (Part 2) Rub fastness test apparatus, Rubbing material, vacuum- desiccator, Vacuum pump, Demineralized water grade 3, Grey scale for assessing change in colour, Grey scale for assessing Staining IS/ISO 105-E01 : 2013 Test Device as per 4.1 of IS/ISO 105-E01 : 2013, oven, adjacent fabrics as per Cl 4.3, Grey scale for assessing change in colour, Grey scale for assessing staining, Spectrophotometer or colorimeter for as per Cl 4.6, acrylic resin plates,

		Flat-bottomed dish made of inert materials, Grade 3 water
46	Strength of Buckle/Ski hook - 7.11, table 12 SI No v)	tensile testing machine as per M-3, sharp knife or scissors, Upper leather, thickness about 2 mm, nylon or polyester shoe laces or suitable chape rivets and a clenching device (for buckles with a chape), thickness guage, scale, vernier calliper
47	Corrosion resistance - 7.11, table 12 SI No vi)	Sodium chloride test solution, dessicator, air circulating oven, bleached cotton fabric, dish, distilled water, cutter/scissor, timer
48	Chemical Requirement - CI 7.12	As per IS 17011
49	Lead Content CI 7.12.2 Table 12 SI No V)	Nessler cylinder , p-Nitrophenol indicator, hydrochloric acid, ammonium hydroxide, hydrogen sulphide solution, Standard lead solution (lead nitrate)Pipette , filter Paper, Weighing Balance

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: 50,000 pairs or Fortnight production (whichever is earlier), of the shoes of same combination of materials, 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 and the outer packaging for each pair of shoe Footwear 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 (in case only bulk packaging is done):

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				
5	Design			R	Firm to have adequate in-process controls to check compliance of this parameter given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity		
6	Size and fittings			R			
7	Whole Footwear						
7.1.1	toe spring	fig. 1	15844 (Part 2)	R	-do-		
7.1.2	Upper to Mid Sole /Out Sole Bond Performance	Annex C	15844 (Part 1)	R	One	each control unit	
7.1.3	Upper to Composite Sole Bond Performance	Annex C	15844 (Part 1)	R	One	each control unit	Applicable only when the sole is Composite
7.1.4	Out Sole to Mid Sole (Multilayer) Bond Performance	Annex C,	15844 (Part 1)	R	One	each control unit	Applicable in case of Footwear having multilayer soles
7.1.5	Energy Absorption at Seat Region		IS 15298 (Part 1),	S	One	once in three months	For each variety
7.1.6	Complete Shoe Flexing		ISO 24266 (Method A)	S	one	once in three months	For each variety

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7.1.7	Washability		IS 8085 (Part 15)/ ISO 19954	S	one	once in three months	For each variety
7.1.8	Slip Resistance	Annex E	15844 (Part 1)	S	one	once in three months	For each variety
7.1.9	Heel drop	Fig 2	15844 (Part 2)	R	Firm to have adequate in-process controls to check compliance of this parameter given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity		
7.2	Upper						
table 2	Leather						
i)	Flexing resistance		IS 5914(Part 6/Sec 1)/ISO 5402-1 (Doc. No. CHD/17/21971)	S	One	Each consignment of material or Test Certificate from supplier/ Manufacturer	
ii)	Tear strength		IS 5914(Part 5/Sec 2) /ISO 3377-2 (Doc. No. CHD/19/21974)	S	One	-do-	
iii)	Colour Fastness rubbing		IS 6191 (Part 4)	S	One	-do-	
iv)	Water vapour permeability		IS 15298 (Part 1)	S	One	-do-	
	Water Vapour Coefficient		IS 15298 (Part 1)	S	One	-do-	
v)	Stitch Tear strength		LP 8 of IS 5914	S	One	-do-	

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vi)	Colour Fastness to light		IS/ISO 105B02	S	One	-do-	
vii)	Tensile Strength		IS 5914 (Part 8)/ISO 3376	S	One	-do-	
viii)	Elongation at break,		IS 5914 (Part 8)/ISO 3376	S	One	-do-	
ix)	water absorption and penetration		IS 15298 (Part 2)	S	One	-do-	
x)	abrasion test		IS 15298 (Part 1)	S	One	-do-	for unlined upper
table 3	coated fabric/textile or combinations thereof						
i)	Breaking strength		IS 7016 (Part 2) Method 1/ISO 1421 : 2016 or ISO 17706	S	One	-do-	
ii)	Elongation at break,		IS 7016 (Part 2) Method 1 ISO 1421 : 2016 or ISO 17706	S	One	-do-	
iii)	Tear strength		IS 15298 (Part 1)	S	One	-do-	
iv)	Strength at needle perforation		Method 'A' of IS 8085 (Part 13)/ ISO 17697	S	One	-do-	

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v)	Flexing resistance		IS 8085 (Part 20)/ISO 17694	S	One	-do-	
vi)	Water vapour permeability		IS 15298 (Part 1)	S	One	-do-	Applicable for Textile upper
	Water vapour coefficient		IS 15298 (Part 1)	S	One	-do-	Applicable for Textile upper
vii)	Hydrolysis resistance		IS 15298 (Part1)/ 16645/ISO 5423	S	one	-do-	Applicable only for material having PU
viii)	Colour fastness to light grey scale		IS/ISO 105-B02	S	One	-do-	
ix)	Bursting Strength		IS 1966 (Part 2)	S	One	-do-	test applicable for Knitted Fabrics
7.3, table 4	lining						Applicable if used
i)	Tear strength		IS 15298(Part 1)	S	One	-do-	
ii)	Abrasion resistance		IS 15298(Part 1)	S	One	-do-	
iii)	Colour fastness to rubbing (crocking),		ISO 105 X12	S	One	-do-	
iv)	Colour fastness to perspiration		IS 6191 (Part 6)/ISO 11641	S	One	-do-	
v)	Water vapour permeability		IS 15298 (Part 1)	S	One	-do-	excluding coated fabric

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	Water vapour coefficient		IS 15298 (Part 1)	S	One	-do-	excluding coated fabric
7.4, table 5	Insole						Applicable if used
i)	Flexing index	Annex 'F'	15844 (Part 1)	S	One	Each consignment of material or Test Certificate from supplier/ Manufacturer	Only Applicable for Cellulose board
ii)	Abrasion resistance		IS 15298 (Part 1)	S	One	-do-	
iii)	Water Absorption		IS 15298 (Part 1)	S	One	-do-	
iv)	Water Desorption		IS 15298 (Part 1)	S	One	-do-	
7.5, table 6	In-sock/ Sockliner						
i)	Thickness		IS 15298(Part 1)	R	Firm to have adequate in-process controls to check compliance of this parameter given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity		including foam
ii)	Abrasion Resistance		IS 15298(Part 1)	S	One	Each consignment of material or Test Certificate from supplier/ Manufacturer	
iii)	Water Absorption		IS 15298(Part 1)	S	One	-do-	

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	Water Desorption		IS 15298(Part 1)	S	One	-do-	
iv)	Heat Shrinkage	Annex J	IS 15844 (Part 1)	S	One	-do-	
7.6, table 7	Outsole						
i)	Abrasion resistance		IS 3400 (Part 3)	S	One	-do-	
ii)	Flexing resistance		Belt Method IS 8085 (Part 4)/ISO 16177 : 2012	S	One	-do-	
iii)	Hydrolysis resistance		IS 15298(Part 1)	S	one	-do-	Only for PU Out sole
iv)	Tear Strength		IS 15298(Part 1)	S	One	-do-	
v)	Tensile Strength		IS 3400 (Part 1)/ISO 37 : 2017	S	One	-do-	
vi)	Elongation at break,		IS 3400 (Part 1)/ISO 37 : 2017	S	One	-do-	
vii)	Compression set	Annex G	IS 15844 (Part 1)	S	One	-do-	
7.7, table 8	Midsole						Applicable if used
i)	Compression set	Annex G	15844 (Part 1)	S	one	-do-	
ii)	Split tear strength	Annex H	15844 (Part 1)	S	one	-do-	
iii)	Heat shrinkage	Annex J	15844 (Part 1)	S	one	-do-	

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iv)	Elongation at break,		IS 3400 (Part 1)/ISO 37 : 2017	S	one	-do-	
7.8, table 9	Counter Stiffener						Applicable if used
i)	First dry collapsing load, hardness	A-3.2.6	IS 7554	S	One	-do-	
ii)	Resilience	A-3.4	IS 7554	S	One	-do-	
iii)	Moisture resistance	A-3.5	IS 7554	S	One	-do-	
iv)	a) Initial dry area shape retention	A-3.1	IS 7554	S	One	-do-	
	b) Area shape retention after 10th collapse, dry	A-3.3	IS 7554	S	One	-do-	
v)	Peel strength	Annex C	IS 15844 (Part 1)	S	One	-do-	
.9, Table 10	Velcro Fastener						applicable if used
i)	Peel strength		IS 8085 (Part 18)/ISO 22777	S	One	-do-	
ii)	Shear strength		IS 8085 (Part 19)/ISO 22776	S	One	-do-	
7.10, table 11	Elastic Tape						Applicable if used
i)	Limit of useful extension		IS 8085 (Part 12)/ISO 10765	S	one	-do-	

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ii)	Needle Strength		Method 'A' of IS 8085 (Part 13)/ISO 17697	S	one	-do-	
7.11, table 12	Fasteners (Lace/ Buckle/Eyelet/D- Ring/Ski-Hook/Metal trims)						Applicable if used and not for decorative purpose
i)	Breaking strength of lace	Annex 'K'	15844 (Part 1)	S	one	-do-	
ii)	Lace tag strength	Annex 'L'	15844 (Part 1)	S	one	-do-	
iii)	Lace to lace abrasion		IS 8085 (Part 17)/ISO 22774	S	one	-do-	
iv)	Colour fastness to water		Contact method IS 6191 (Part 2)/ISO 11642 : 2012	S	One	-do-	for lace
v)	Strength of Buckle/Ski hook	Annex 'M'	15844 (Part 1)	S	one	-do-	
vi)	Corrosion resistance		IS 17098	S	One	-do-	Applicable for all including decorative metal part

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7.12	Chemical Requirement	Table 1	IS 17011	S	one	Each consignment of raw material	All the components of sports shoe which are in direct contact of foot shall comply with Table 1 of IS 17011 for critical substances Category I and Category II as specified under 3.6 of IS 17011
7.12.2	Lead Content		IS 12240 (Part 5)	S	One	Each consignment of raw material	Only In case PVC material is present Test Certificate/report should be obtained either from supplier or from any independent Laboratory