उत्पाद मैन्युअल
जूते - भाग 2 सामान्य प्रयोजन के लिए जूते
भारतीय मानक 17043 (भाग 2):2024 के अनुसार

PRODUCT MANUAL
FOR
SHOES: SHOES FOR GENERAL PURPOSE
ACCORDING to IS 17043 (Part 2):2024

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 underScheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations,2018 for variousproducts. The document may also be used by prospective applicants desirous of obtaining BIS certification.

1.	**मानक संख्या** **IS No.**	:	IS 17043 (Part 2):2024
	शीर्षक **Title**	:	जूते - भाग 2 सामान्य प्रयोजन के लिए जूते Shoes: Shoes for General Purpose.
	संशोधनों की संख्या **No. of amendments**	:	01
2.	**नमूना दिशानिर्देश** **Sampling Guidelines**		
a)	**कच्चा माल** **Raw material**	:	Raw material of components used in footwear shall be declared by the 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**	:	Please refer to Annex-A.
c)	**नमूने का परिमाण** **Sample Quantity**	:	1. 4 Pairs of footwear. (3 pairs for physical testing and 1 pair for chemical analysis.). 2. Components to be provided separately if required. 3. One MS to be drawn for complete testing including

			Chemical requirements for an operative period. 4. For rest of the surveillance samples (FS and MS) - all tests excluding chemical are to be carried out in that operative period. *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**	:	1. Category 2. Type 3. Size 4. Water proofness and other additional claims, as applicable *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-B.
4.	**निरीक्षण और परीक्षण की स्कीम** **Scheme of Inspection and Testing**	:	Please refer to Annex-C.
5.	**एक दिन में संभावित परीक्षण** **Possible tests in a day**		
	All tests (on Pre 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:**		
	"Licence is granted to use Standard Mark as per IS 17043 (Part 2): 2018 with the following scope:		
	Name of the product	Shoes for General Purpose	

	Category, Type and sizes	1. Kids (sizes to be declared) a. Children b. Infants and/or; 2. Adult (sizes to be declared) a. Type 1 b. Type 2
	Additional Claims	Water proof shoes and/or Claims as per table 3, 5, 11 (claims other than water proof is applicable only for type 1)

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ANNEX-A

GROUPING GUIDELINES

1. As per the Indian Standard, following varieties for shoes may be applicable:
    a. Based on use, shoes are divided into the following Category –
        i. Kids (Children and infants)
        ii. Adult
    b. Adult Category of Footwear are further classified into two types as given below:
        i. Type 1
        ii. Type 2
    c. Additional Claims (water proof shoes and/or Claims as per table 3, 5, 11)

2. The following Grouping guidelines shall apply for Grant of Licence (GOL)/ Change in Scope of Licence (CSOL):
    a. Each category (Adult / Kids) and Type (Type 1 / Type 2 under Adult category) of any size may be tested to include that Category and that Type for all sizes in the scope of licence.
    b. For each Additional Claims (applicable for Type 1), shoes of any size and combination may be tested for the requirement claimed. However, if Water proofness claim is covered for Type 1, the same may be covered for Type 2 and Kids
    c. 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, no change in the type/nature and/or the source of the materials already tested is needed to be declared by the manufacturer.

3. All combinations of components of footwear within the scope of Licence may be informed by Licensee to BIS. It shall be responsibility of the manufacturer to ensure compliance of the footwear with different component combination to all the requirements of the Indian Standard.

4. However, while considering grant of licence/change in scope of licence, it will be ensured that the applicant/licensee has got the complete manufacturing and testing facilities, as applicable for all the varieties intended to be covered.

5. During operation of the licence, BOs shall ensure that all the samples are tested for all applicable requirements on the product, and varieties covered in the licence are tested in rotation.

ANNEX - B

LIST OF TEST EQUIPMENT

(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sl. No.	Tests used in with clause reference	Test Equipment / Chemicals
1.	Bond strength, Upper to sole/mid sole/composite sole, Sl no i) table 1, Cl 5.4, Inter layer bond strength, midsole to outsole, Sl no ii) table 1, Cl 5.4, Bond Strength between Rubber toplift and adjacent material Sl no iv), table 12, Cl 6.5.2.3, Adhesion strength Sl v), table 14, Cl 6.7	Tensile testing machine with a chart recorder, clamping jaws for tensile tester, razor or sharp knife, steel scale, sample press, humidity chamber
2.	Whole shoe flexing, Sl no iii) table 1, Cl 5.4	As per IS 8085(Part 16)/ISO 24266
3.	Water proofness on complete shoe Sl no iv) table 1, Cl 5.4	flexing machine, tray, Absorbent paper, deionized water, conditioning chamber
4.	Slip resistance, Cof Sl no v) table 1, Cl 5.4	A slip resistance test machine incorporates as per E-4 of Annex E, with a secure attachment point, Dry, absorbent paper towel, conditioning chamber and arrangement to maintain room temperature at 27+-2 °C and requirements as per Annex N
5.	Attachment strength of strap and buckle/D-ring, Sl no vi) table 1, Cl 5.4, Attachment strength of strap and Velcro, Sl no vii) table 1, Cl 5.4	A tensile testing machine, as per Cl D-3 of IS 6721, knife, scale
6.	Strength of eyelet attachment Sl no viii) table 1, Cl 5.4	tensile testing machine and accessories as per C 3 of Annex C,
7.	Heel pull off strength Sl no ix) table 1, Cl 5.4	Tensile-testing machine as per Cl 4.1 of IS 8085 (Part 10), Devices for attaching the shoe heel, Device for chunky heels, Dividers
8.	Top piece attachment strength, Sl no x) table 1, Cl 5.4	Tensile Testing machine as per ISO 19958 with drill bolt and rod

9.	Seam strength, Sl no xi) table 1, Cl 5.4	Tensile testing machine, Small sharp hand knife, scissors, press knife, sewing machine, accessories. (as per IS 8085 (Part 13), Method B)
10.	Whole shoe topline strength, Sl no xii) table 1, Cl 5.4	Tensile testing machine, sharp hand knife, lacing gap or elastic gusset, narrow tape, conditioning chamber
11.	Abrasion resistance - Sl no Xiii), Table 1, Cl 5.4	<u>For Cellular and solid sole</u> Abrasion machine as per 5.1 of IS 3400 (Part 3)/ ISO 4649, abrasive sheet, Hollow drill, balance, standard reference compounds. Conditioning chamber, arrangement for keeping ambient temperature, standard reference compounds <u>For leather sole</u> A rigid table with resin bonded abrasive paper, A carriage fitted with two square specimen holder as per Cl B-3, Two steel plates, Thickness gauge with LC of 0.01 mm and the applied pressure of 49 kPa ± 5 kPa, as per Cl B-4, conditioning chamber
12.	Chemical requirement, Sl no xiv) table 1, Cl 5.4	As per IS 17011
13.	Lead content Sl no xv) table 1, Cl 5.4	Nessler cylinders, P-Nitrophenol indicator Sol, Dil Hydrochloric acid, hydrogen sulphide solution, Standard lead solution, whatman filter paper
14.	Hydrolysis resistance Sl no xvi) table 1, Cl 5.4	as per IS 16255/ ISO 5423 : 1992
15.	Tear strength Sl no i), Table 2, Cl 6.1.1	Tensile testing machine as per 4.1 of IS 5914(Part 5:Sec2):2023, thickness gauge, press knife as per IS 5914(Part 5:Sec2):2023, conditioning chamber
16.	Flexing resistance, Sl no ii), Table 2, Cl 6.1.1,	Test machine as per Cl .1 of IS 5914 (Part 6/Sec1), Press knife, Magnifier, Desiccator, Vacuum pump, Distilled or deionized water, Glass dishes, Mandrel, Metal clip, Stereo microscope

17.	Color Fastness to rubbing (marring/staining) Sl no iii), Table 2, Cl 6.1.1	Rub fastness test apparatus Rubbing material, Vessel suitable for evacuation, Vacuum pump, Demineralized water, Grey scale for assessing staining, Grey scale for assessing change in colour, Spectrophotometer or colorimeter for assessing change in colour and staining (as per IS 6191 (Part 4)/ISO 11640)
18.	Colour fastness to water (contact method – multi fabrics) Sl no iv), Table 2, Cl 6.1.1	Test apparatus as per Cl 4.1 of IS 6191 (Part 2)/ ISO 11642, Oven, maintained at 37 °C ⍰ 2 °C. Adjacent fabrics (ISO 105- A01). Demineralized water, Fine-grained adhesive paper, Grey scale for assessing staining, Grey scale for assessing change in colour, Spectrophotometer or colorimeter for assessing change in colour and staining, vacuumdesiccator, Vacuum pump, (as per)
19.	Water vapour permeability, Water vapour coefficient, Sl no v), Table 2, Cl 6.1.1, Sl no v) Table 4,Cl 6.1.3, Sl no v) Table 6,Cl 6.2; Water resistance, (Water absorption percent, Water transmission) Sl no ii), Table 3, Cl 6.1.2	Permeability Appts as per cl 6.6 & 6.7 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
20.	Stitch tear strength, Sl no vi), Table 2, Cl 6.1.1	metal wire, punch, testing machine as per 3.3 of LP 8 of IS 5914
21.	Abrasion resistance Sl no vii), Table 2, Cl 6.1.1; Sl no vii) Table 4,Cl 6.1.3; Sl no ii) Table 6,Cl 6.2; Sl no ii), Table 8 Cl 6.4	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.

22.	Colour fastness to light, Marring Sl no i), Table 3, Cl 6.1.2; Sl no i), Table 5 Cl 6.1.4	Laboratory exposure devices as per 5.2 of IS/ISO 105B02:2014. 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 (Cl 5.1) water of quality Grade 3 minimum in accordance with ISO 3696
23.	Flexing resistance, Sl no iii), Table 3, Cl 6.1.2; Sl no vi) Table 4,Cl 6.1.3, Sl no ii) Table 5 Cl 6.1.4	Test machine as per 5.1 of IS 8085 (Part 20), press knife, optical magnifier, distilled/deionized water, glass dish, filter paper, dissiccator, vacuum pump, cabinet as per 5.5 of IS 8085 (Part 20),
24.	Breaking strength, Elongation at break, percent, Sl no i) Table 4,Cl 6.1.3	Tensile Testing machine as per Cl 4.1 of ISO 17706, press knife, Vernier caliper/ Steel rule
25.	Tear Strength Sl no ii) Table 4,Cl 6.1.3, Tear strength Sl no i) Table 5,Cl 6.2	Tensile testing machine as per IS 7016 (Part 3/Sec 1)/ISO 4674-1 or IS 8085 (Part 9)/ISO 17696, conditioning chamber, press knife
26.	Strength at needle perforation, Sl no iii) Table 4,Cl 6.1.3; Sl no ii), Table 16, Cl 6.9	Tensile testing machine as per Cl 4.1.1 of IS 8085 (Part 13), Needle holding , Two rectangular rigid plates , drilled plates, spacing plate, Seventeen needles (as per 4.1.3 of IS 8085 (Part 13)), normal round point, Press knife/cutting device
27.	Colour fastness rubbing, Sl no iii) Table 6,Cl 6.2	apparatus as per 4.1 of ISO 105-X12, Cotton rubbing cloth, Soft- back waterproof abrasive paper, Grey scale
28.	Colour fastness to perspiration (Contact method –staining), Sl no iv) Table 6,Cl 6.2	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
29.	Flexing index, Sl no i) Table 7, Cl 6.3	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 ± 2)°C and a relative humidity of 65 ± 2 percent,

30.	Abrasion resistance at 400 cycles, Sl no ii) Table 7, Cl 6.3	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).
31.	Water absorption, Water desorption percent, Sl no iii) Table 7, Cl 6.3, Sl no iii), Table 8 Cl 6.4	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
32.	Thickness mm, Sl no i), Table 8 Cl 6.4	Test machine as per Cl 4.1 of ISO 2589, conditioning chamber
33.	Flexing resistance (belt method) Benn wart method, Sl no i), Table 9, Cl 6.5.1	Belt Method Flexing machine as per 2.1 of 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. Bennewart Method Flexing machine, (D 3, Figure 1) of Annex D, vernier calipers, chisel thermometer with LC of 1 °C, thickness gauge
34.	Hydrolysis resistance, Sl no ii), Table 9, Cl 6.5.1	Micrometer, vernier, Oven/air gun, Desiccator, Flexing machine (as per Cl 2.1 of IS 8085 (Part 4), PU adhesive system as per Cl 2.2 of IS 8085 (Part 4), Cutting device, smooth surfaced hand tool, rated cabinet, thermometer, Primers as per Cl 2.7 of IS 8085 (Part 4),
35.	Compression set, percent, Sl no iii), Table 9, Cl 6.5.1; Sl no iii), Table 13, Cl 6.6	<u>Method A</u> thickness gauge 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 ± 2) °C or (20 ± 2)°C, a band knife splitter or a surface grinder. Stop watch, thickness gauge <u>Method B</u> compression apparatus as per G-2.1.1 conditioning chamber, thickness gauge

36.	Grain crack index, Sl no i), Table 10, Cl 6.5.2.1	apparatus as per 4 of ISO 3378, conditioning chamber, thickness guage
37.	Density, Sl no ii), Table 10, Cl 6.5.2.1	thickness guage, balance with LC of 0.0001g, vernier calliper (LC 0.01 mm), arrangement for standard atmospheric conditions of lab as per ISO 2420
38.	Abrasion resistance, Sl no iii), Table 10, Cl 6.5.2.1	A rigid table with resin bonded abrasive paper, A carriage fitted with two square specimen holder as per Cl B-3, Two steel plates, Thickness gauge with LC of 0.01 mm and the applied pressure of 49 kPa ± 5 kPa, as per Cl B-4, conditioning chamber
39.	Water penetration and absorption, Sl no i), Table 11, Cl 6.5.2.2	Test machine as per E-3.1 of IS 17043 (Part 2), Undyed cotton gauze, Press knife, Thickness gauge, Absorbent cellulosic board, Abrasive paper, Balance reading to 0,001 g , Clock, reading to 1 s, Flexible waterproof adhesive, Transparent overlay, filter paper, conditioning chamber
40.	Hardness, Sl no i), Table 12, Cl 6.5.2.3	Durometer, Type A consisting of the following components: Presser foot, with a hole between 2’5 and 3’5 mm in diameter, centred at least 6 mm from any edge of the foot. Indenter, formed from a hardened steel rod between 1.10 and 1’40 mm in diameter to the shape and dimensions shown in Fig. 1 for Type A durometers in IS 12240 (Part 2):1988.
41.	Density, Sl no ii), Table 12, Cl 6.5.2.3	Balance (LC-1 mg), Balance straddle, Beaker (250 ml), Copper wire, oven, sinker, cutting device
42.	Abrasion resistance, Sl no iii), Table 12, Cl 6.5.2.3	Abrasion machine as per 5.1 of IS 3400 (Part 3)/ ISO4649, abrasive sheet, Hollow drill, balance, standard reference compounds. Conditioning chamber, arrangement for keeping ambient temperature, standard reference compounds
43.	Heat shrinkage, Sl no i), Table 13, Cl 6.6	Air-circulating oven, capable of maintaining a temperature of 70.0 ± 1.0°C, Steel scale, with LC of 0.5 mm, vernier Caliper (LC of min 0.1 mm),

		arrangement to maintain temperature at 27.0 ± 2.0°C, stop watch
44.	Split tear strength Sl no ii), Table 13, Cl 6.6	Tensile Testing Machine, with chart recorder as per Annex H, Clamping Jaws, preferably rubber-faced, sharp blade
45.	Hardness, Sl no i), Table 14, Cl 6.7	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
46.	Resilience, Sl no ii), Table 14, Cl 6.7	
47.	Moisture resistance Sl no iii), Table 14, Cl 6.7	
48.	Area shape retention, Sl no iv), Table 14, Cl 6.7	
49.	Peel strength, Sl no i), Table 15, Cl 6.8	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
50.	Shear strength Sl no ii), Table 15, Cl 6.8	Tensile testing machine as per ISO 22667, roller device, fork as per 5.3 of ISO 22776
51.	Limit of useful extension Sl no i), Table 16, Cl 6.9	Tensile testing machine, Steel ruler. (as per IS 8085 (Part 12)/ISO 10765)
52.	Lace breaking strength, Sl no i), Table 17, Cl 6.10	A tensile testing machine as per Annex K of IS 15644 (part 1), conditioning chamber,
53.	Lace tag strength, Sl no ii), Table 17, Cl 6.10	Tensile strength testing machine as per L-1 and Slotted Plate as per L-1.2 of Annex L of IS 15644 (part 1)
54.	Lace to lace abrasion resistance cycles Sl no iii), Table 17, Cl 6.10	as per IS 8085 (Part 17)/ISO 22774
55.	Colour fastness to water for lace contact method staining Sl no iv), Table 17, Cl 6.10	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.

56.	Corrosion resistance Sl no v), Table 17, Cl 6.10	Method 1 Kipps generator, Means of suspending the test specimen in the glass vessel, Fume cupboard Method 2 Sealable polyethylene (PE) bags, Sodium chloride test solution, Sealable vessel, bleached cotton fabric, dish, distilled water, cutter/scissor, timer
57.	Fatigue resistance, Sl no i), Table 18, Cl 6.11	test machine, fixed clamp, free clamp, test fastener, tape, slider, puller, teeth, end stop top stop, stringer, harmonic reciprocating motion, abrasive paper
58.	Security of puller attachment strength, Sl no ii), Table 18, Cl 6.11	Tensile testing machine, tape, slider, puller, teeth, end stop top stop, stringer, fastener slider, Torsion, clamps,
59.	Lateral load, Sl no iii), Table 18, Cl 6.11	Tensile testing machine, tape, slider, puller, teeth, end stop top stop, stringer, abrasive paper, clamps,
60.	End attachment strength, Sl no iv), Table 18, Cl 6.11	Tensile testing machine, upper clamp of testing machine, small hook, slider puller, stringer, lower clamp,

The above list is indicative only and may not be treated as exhaustive.

ANNEX - C
SCHEME OF INSPECTION AND TESTING

1. QUALITY ASSURANCE PLAN

1.1 It is expected that during operation of BIS licence, manufacturers will implement a Quality Assurance Plan (QAP) 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 (QAP) defining the control unit (i.e. lot/batch etc.), the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and declare the arrangement for testing i.e. whether in-house or subcontracting/sharing for each applicable test and submit the same to BIS Branch Office for information. The manufacturer shall comply with the QAP and maintain test records in accordance with para 2.1.

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, recommendedlevels of control are given in Table 1. Manufacturer has the discretion of declaring their own levels of control or accept the levels of control given in this document.

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.

2. ENSURING COMPLIANCE THROUGH TESTING- manufacturers shall ensure compliance of their products to all the requirementsof the Indian Standard for which they may have in-house test facilities. However, there is no obligation to maintain in-house laboratory. Licensee may use alternative arrangements for tests of the production as per the declared QAP. Various alternatives are available for operation of BIS certification as given below and the relevant guidelines for availing such relaxations by the manufacturers, as amended from time to time, are to be referred:

i) Shared testing resources like common facility,

ii) Cluster based testing facility,

iii) Sub-contracting to outside laboratories which may either be:

a) BIS recognised/empanelled laboratories, or

b) Any accredited laboratory as per ISO/IEC 17025

2.1 **TEST RECORDS**- The manufacturers shall maintain test records for the tests carried out (either in-house or at a sub-contracted or at shared test facility) to establish conformity of the product to the Standard for operation of licence. For the tests being subcontracted or conducted at a shared test facility, test results issued by the laboratories or test facilities, shall be made

available for inspection by BIS.

3. PACKING AND MARKING - The Standard Mark as given in the Schedule of the licence shall be incorporated (including BIS licence no. CM/L_____) 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.

4. Packing and marking shall be done as per the provision of the Indian Standard. In addition, 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) BIS website details: "For BIS certification details please visit www.bis.gov.in"

5. REJECTION - 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.

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

6.1 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.

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

TABLE 1

(Recommended Levels of Control by BIS - For Guidance Only)

(1)				(2)		
Test Details				**Levels of Control**		
Clause	**Requirement**	**Test Methods**		**No. of Sample**	**Frequency**	**Remarks**
		Clause	**Reference IS**			
5.1	Shape and Design	5.1	IS 17043 Part 2	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.		
5.2	Construction	5.2	IS 17043 Part 2			
5.3	Material	5.3	IS 17043 Part 2			
5.4 Table 1 Complete Product Performance for All Types of Shoes for General Shoes						
i)	Bond strength, Upper to sole/mid sole/composite sole	Annex-C	IS 15844 Part 1	one	Each control unit	Not applicable for stitched down construction
ii)	Inter layer bond strength	Annex-C	IS 15844 Part 1			applicable only for multilayer sole
iii)	Whole shoe flexing flexes	Method -A	IS 8085 Part 16	one	Once in three months	not applicable for rigid plastic sole and heel height above 50 mm shoe which is not able to flex or bend at forepart
iv)	Water proofness on complete shoe	Annex B	IS 17043 Part 2	one	-do-	applicable only if water proof shoes is claimed
v)	Slip resistance Cof	Annex E	IS 15844 Part 1	one	-do-	not applicable for leather sole
vi)	Attachment strength of strap	Annex D	IS 6721	one	Each control unit	Applicable if present and functional
	and buckle/D-ring					

vii)	Attachment strength of strap and Velcro, N,min	Annex D	IS 6721	one	Each control unit	Applicable if present and functional
viii)	Strength of eyelet attachment	Annex C	IS 17043 Part 2	one	Each control unit	Applicable if present and functional
ix)	Heel pull off strength	-	8085 Part 10	one	Each control unit	applicable for heel height 50 mm and above attached separately to the shoe
x)	Top piece attachment strength	-	ISO 19958	one	Each control unit	applicable if top piece is present and attached separately
xi)	Seam strength,	Method B	IS 8085 Part 13	one	Each control unit	Applicable for adult (Type 1)
xii)	Whole shoe topline strength,	Annex D	IS 17043 Part 2	one	Each control unit	1. applicable to only court shoe with high heel shoes above 50 mm 2. Applicable for adult (Type 1)
xiii)	Abrasion resistance (volume loss)			one	Once in three months	
	a) Cellular sole		3400(Part 3) 2021			
	b) Solid sole					
	c) Abrasion resistance, (for leather sole only)		Annex-B of IS 6721:2023			1. for leather sole only 2. Applicable for adult (Type 1)
xiv)	Chemical requirements	5.4	IS 17043 Part 2	one	Each consignment of raw material	1. Only on all the components of shoes which are in direct contact of foot. 2. Testing to be done for critical substances Category I and Category II of Table 1 of IS 17011 3. Test Certificate/report may be obtained either from supplier or from any independent Laboratory

xv)	Lead content (as Pb)	-	IS 12240 Part 5	one	Each consignment of raw material	1. applicable only for PVC 2. Applicable for kids and adult (Type 1) 3. Test Certificate/report may be obtained either from supplier or from any independent Laboratory
xvi)	Hydrolysis resistance	-	IS 15298 Part 1	one	Once in three months	1. applicable for PU sole only 2. not applicable for rigid sole
	Optional requirements (Applicable for adult, Type 1)					
6.1.1, Table 2 Upper Material Leather						
i)	Tear strength	-	IS 5914 (Part 5/Sec-2)/ ISO 3377-2	one	Each consignment of material or Test Certificate from supplier/ Manufacturer	
ii)	Flexing resistance	-	IS 5914 Part 6/Sec 1	one	-do-	
iii)	Colour fastness to rubbing (marring/ staining)	-	ISO 11640 : 2012	one	-do-	
iv)	Colour fastness to water	contact method-multi fabrics	ISO 11642	one	-do-	
v)	Water vapour permeability, coefficient	-	IS 15298 Part 1	one	-do-	
vi)	Stitch tear strength	-	IS 5914- LP 8	one	-do-	
vii)	Abrasion resistance	-	IS 15298 Part 1	one	-do-	applicable for unlined upper
6.1.2, Table 3 Additional Requirements Based on the Claims of the Manufactures						applicable if present
i)	Colour fastness to light, Marring	-	IS/ISO 105 B02	one	-do-	

ii)	Water resistance	-	IS 15298 Part 1	one	-do-	
iii)	Flexing resistance,	-	IS 8085 (Part 20)/ISO 17694	one	-do-	applicable only cold region
6.1.3, Table 4 Upper Material Non Leather (Coated Fabric and Textiles)						
i)	Breaking strength Elongation at break	-	ISO 17706	one	-do-	
ii)	Tear strength	Method B	IS 7016 Part 3/Sec 1	one	-do-	
iii)	Strength at needle perforation	Method A	IS 8085 Part 13	one	-do-	
iv)	Flexing resistance flexes	-	IS 8085 Part 20	one	-do-	applicable only for cold region
v)	Water vapour permeability, Coefficient	-	IS 15298 Part 1	one	-do-	Applicable only for nonlaminated textile
vi)	Hydrolysis resistance	-	IS 5914 Part 6/Sec 1	one	-do-	applicable for PU coated material
vii)	Abrasion resistance	-	IS 15298 Part 1	one	-do-	applicable for unlined upper
6.1.4, Table 5 Additional Requirements Based on the Claims of the Manufactures						
i)	Colour fastness to light, Marring	-	IS/ISO 105 B02	one	-do-	
ii)	Flexing resistance	-	IS 8085 (Part 20)/ISO 17694	one	-do-	
6.2, Table 6 Lining for all Materials , If used						
i)	Tear strength	Method B	IS 7016 Part 3/Sec 1	one	-do-	
ii)	Abrasion resistance	-	IS 15298 Part 1	one	-do-	
iii)	Colour fastness rubbing	-	IS/ISO 105 X12	one	-do-	
iv)	Colour fastness to perspiration	contact method-staining	IS 6191 Part 6	one	-do-	

v)	Water vapour permeability, Coefficient,	-	IS 15298 Part 1	one	-do-	applicable only for textile and leather lining
6.3 Table 7 Requirements for Insole						If used
i)	Flexing index	Annex F	IS 15844 Part 1	one	-do-	For Cellulose and leather board
ii)	Abrasion resistance at 400 cycles	-	IS 15298 Part 1	one	-do-	
iii)	Water absorption Water desorption	-	IS 15298 Part 1	one	-do-	
6.4 Table 8 Requirement for In -Sock						
i)	Thickness	-	ISO 2589	one	-do-	
ii)	Abrasion resistance	-	IS 15298 Part 1	one	-do-	
iii)	Water absorption Water desorption	-	IS 15298 Part 1	one	-do-	
6.5.1 Table 9 Outsole – Other than Leather						If used
i)	Flexing resistance	belt method or Bennew art method	IS 8085 Part 4 IS 15844 (Part 1) Annex D	one	-do-	not applicable for rigid plastic sole which is not able to flex or bend at forepart
ii)	Hydrolysis resistance	-	IS 15298 Part 1	one	-do-	applicable for PU sole only
iii)	Compression Set	Annex G	IS 15844 Part 1	one	-do-	applicable for cellular sole only
6.5.2.1 Table 10 Sole-Leather Used in Shoes						
i)	Grain crack index,	-	ISO 3378	one	-do-	
ii)	Density,	-	IS 5914 Part 4	one	-do-	
iii)	Abrasion resistance	Annex B	IS 6721	one	-do-	
6.5.2.2 Table 11 Additional Requirements based on the claims of the Manufacturer for Water Resistance						

i)	Water resistance	-	ISO 5404	one	-do-	
a)	No water penetration	-	ISO 5404	one	-do-	
b)	Water absorption	-	ISO 5404	one	-do-	
6.5.2.3 Table 12 Applicable for Rubber or Polymeric Top-Lifts						
i)	Hardness, (Shore A)	-	IS 5676	one	-do-	
ii)	Density	Annex C	IS 10702	one	-do-	
iii)	Abrasion resistance (volume loss)	-	IS 3400 Part 3	one	-do-	
iv)	Bond Strength	Annex C	IS 15844 Part 1	one	-do-	
6.6 Table 13 Requirements for Midsole						If used
i)	Heat shrinkage	Annex J	IS 15844 Part 1	one	-do-	
ii)	Split tear strength	Annex H	IS 15844 Part 1	one	-do-	
iii)	Compression set	Annex G	IS 15844 Part 1	one	-do-	applicable for cellular sole only
6.7 Table 14 Toe and Counter Stiffener						If used
i)	Hardness	Annex A - 3.2	IS 7554	one	-do-	
ii)	Resilience, percent	Annex A- 3.4	IS 7554	one	-do-	
iii)	Moisture resistance	Annex A3.5	IS 7554	one	-do-	
iv)	Area shape retention a) Initial, b) After 10 collapsing load	Annex A- 3.1/ Annex A-3.3	IS 7554	one	-do-	
v)	Adhesion strength	Annex C	IS 15844 Part 1	one	-do-	
6.8 Table 15 Requirements for Velcro Fastener						If used

i)	Peel strength a) Initial, b) After 5 000 wear cycles,	-	IS 8085 Part 18	one	-do-	
ii)	Shear strength a) Initial, b) After 5 000 wear cycles	-	IS 8085 Part 19	one	-do-	
6.9 Table 16 Requirements for Elastic Tape						If used
i)	Limit of useful extension	-	IS 8085 Part 12	one	-do-	
ii)	Needle strength	Method A	IS 8085 Part 13	one	-do-	
6.10 Table 17 Fasteners (Lace/Buckle/Eyelet/D-Ring/Ski-Hook/Metal trims)						If used and not for decorative purpose
i)	Lace breaking strength	Annex K	IS 15844 Part 1	one	-do-	
ii)	Lace tag strength	Annex L	IS 15844 Part 1	one	-do-	
iii)	Lace to lace abrasion resistance	6.10	IS 8085 Part 17	one	-do-	
iv)	Colour fastness to water	for lace contact method-staining	IS 6191 Part 2	one	-do-	
v)	Corrosion resistance	6.10	IS 17098	one	-do-	applicable for all including decorative metal part
6.11 Table 18 Requirements for Zipper						If used
i)	Fatigue resistance	-	ISO 10751	one	-do-	
ii)	Security of puller attachment	-	ISO 10734	one	-do-	
iii)	Lateral load	-	ISO 10764	one	-do-	
iv)	End attachment strength	-	ISO 10750	one	-do-	