

CENTRAL MARKS DEPARTMENT-II

Our Ref.: CMD-II/16:15298 (Pt 2)

24 05 2012

Subject: Implementation of revised specification for IS 15298 (Pt 2):2011/ISO 20345:2004 Safety Protective and Occupational Footwear for Professional use Part 2 Specification for Safety Footwear.

Please find enclosed a revised draft STI for IS 15298 (Pt 2):2011/ISO 20345:2004 Safety Protective and Occupational Footwear for Professional use Part 2 Specification for Safety Footwear.

As per provision Clause 4.4.6 of Operating Certification Manual, a copy of draft STI shall be circulated to all licensees/applicants for their comments. If any and initiating action for implementation prior to application/Gazette Notification.

As per Buyer's Guide, 21 licences are in operation on all-India basis. All BO's are requested to examine the draft STI of the revised version and bring to the notice of the licensee/applicant immediately.

The difficulties/comments, if any expressed by the licensee/applicant in implementing the same may be brought to the notice of CMD-II by BO with their recommendation, within a month. The date of implementation will be intimated to you in due course.

(N.K. Bansal)

Sc.E

Sc.F & Head (CMD-II)

All ROs/BOs

DRAFT

**SCHEME OF TESTING AND INSPECTION
FOR CERIFICATION OF
SAFETY, PROTECTIVE AND OCCUPATIONAL
FOOTWEAR FOR PROFESSIONAL USE PART 2
SPECTIFICATION FOR SAFETY FOOTWEAR
ACCORDING TO IS 15298(Part 2):2011/ISO 20345:2004
(Incorporating Amendment No. 1)**

1.0 LABORATORY- A laboratory shall be maintained, which shall be suitably equipped and staffed, where different tests given in the specification shall be carried out in accordance with the method given in the specification. Otherwise suitable arrangements through an outside laboratory to insure conformity to Eco Criteria for each Control Unit shall be made.

1.1 All the testing apparatus shall be periodically checked and calibrated and records of such checks/calibration maintained.

2.0 TEST RECORD- All records of tests and inspection shall be kept in suitable forms approved by the Bureau of Indian Standards.

2.1 Copies of any records and other connected papers that may be required by Bureau shall be made available at any time on request.

3.0 QUALITY CONTROL - It is recommended that, as far as possible, Statistical Quality Control (SQC) methods may be used for controlling the quality of the product during production as envisaged in this scheme[See IS 397(Part I):2003, IS 397(Part 2):2003 and IS397(Part 3):2003].

3.1 In addition, efforts should be made to gradually introduce a quality management system in accordance with the quality system module as per IS/ISO 9001.

4.0 STANDARD MARK :- The standard mark(s) as given in column (1) of the first schedule of the licence shall be stamped on each carton of the shoe pairs, provided always that the safety protective and occupational footwear for professional use to which this mark is thus applied conforms to every requirement of the specification.

5.0 MARKING – In addition to the standard mark, the Safety Footwear/Box shall be clearly and permanently marked, for example by embossing or branding with the following:

- a) Size;
- b) Manufacturer's Identification Mark;
- c) Manufacturer's Type designation;
- d) Date of manufacture(atleast quarter and year);
- e) Country of manufacture;
- f) The number of this International Standard, i.e. ISO 20345:2004
- g) The designation(s) from table 3 appropriate to the protection provided; and
- h) Licence No. CM/L-----

6.0 PACKING:- The safety footwear shall be suitably packed as agreed to between the purchaser and supplier.

6.1 Leaflet shall be supplied in the case of conductive footwear and Antistatic footwear worded as given in 7.1 for conductive footwear and 7.2 for Antistatic footwear of IS 15298(Part 2):2011/ ISO 20345:2004.

7. RAW MATERIALS- Raw Materials used for Upper, Lining, Insole, Toe Cap, Sole etc shall be of suitable quality so that safety footwear shall conform to IS 15298 (Part-2):2011/ISO 20345:2004.

8.0 LEVELS OF CONTROL :- The analysis and tests, as indicate in Table 1 and at the levels of controls specified therein, shall be carried out on the whole production of the factory which is covered by this scheme and appropriate records and charts maintained in accordance with item 2 above. All the production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the Standard Mark.

8.1 CONTROL UNIT- For the purpose of this scheme, control unit shall be as follows:

10,000 pairs or Fortnight production of the safety footwear, which ever is earlier manufactured from the same consignment of the raw material.

On the basis of test result, the decision regarding conformity or otherwise of a control unit to a given requirement shall be made as follows:

8.1.1 No. of sample shall be drawn from each control unit and to be tested for all the requirements as specified in Table 1 of the scheme.

8.1.2 If the sample fails to confirm in any of the

requirements laid down in the specification, such, entire control unit represented by the sample shall be considered unfit for the purpose of marking.

8.2 INSPECTION OF FINISHED PRODUCT

8.2.1 VISUAL DEFECTS, FINISH AND DIMENSIONS- All finished shoe pairs shall be examined visually for surface defects, finish and dimensions. Only those shoe pairs, which are satisfactory in all respects, shall be considered acceptable.

9.0 In respect of all other clauses of the specification the factory will maintain appropriate controls and checks to ensure that their product conforms to the various requirements of the specification.

10.0 REJECTIONS- A separate record providing the detailed information regarding the rejected control units and mode of their disposal shall be maintained. Such material shall in no case be stored together with that conforming to the specification.

11.0 SAMPLES-The licensee shall supply, free of charge, the sample(s) required in accordance with the Bureau of Indian Standards (Certification) Regulations, 1988, as subsequently amended from his factory or godowns. The BIS shall pay for the samples taken by it from the open market.

12.0 REPLACEMENT- Whenever a complaint is received soon after the goods with Standard Mark have been purchased and used, and if there is adequate evidence that the goods have not been misused, defective goods are replaced free of cost by the licensee, in case the complaint is proved to be genuine and the warranty period (where applicable) has not expired. The final authority to judge the conformity of the product to the Indian Standard shall be with BIS.

In the event of any damages caused by the goods bearing the standard mark, or claim being filed by the consumer against BIS Standard Mark and not "conforming to" the relevant Indian Standards, entire liabilities arising out of such non conforming products shall be of licensee and BIS shall not in any way be responsible in such cases.

13.0 STOP MARKING- The marking of the product shall be stopped under intimation to the Bureau if, at any time there is some difficulty in maintaining the conformity

of the product to the specification, or the testing equipment goes out of order. The marking may be resumed as soon as the defects are removed under intimation to BIS.

The marking of the product shall be stopped immediately if directed to do so by the Bureau for any reason. The marking may then be resumed only after permission by the Bureau. The information regarding resumption of markings shall also be sent to the Bureau.

14.0 PRODUCTION DATA- The licensee shall send to BIS, as per the enclosed proforma, a statement of the quantity produced, marked and exported by him and the trade value thereof during the half year ending 30 June and 31 December. This statement is required to be forwarded to BIS on or before the 31st day of July and January for the proceeding half-year.

IS 15298 (Part 2):2011 / ISO 20345:2004
SAFETY, PROTECTIVE AND OCCUPATIONAL
FOOTWEAR FOR PROFESSIONALLY USE PART 2
SPECIFICATION FOR SATETY FOOTWEAR
TABLE 1 LEVEL OF CONTROL
(Para 8.0 of the Scheme of Testing and Inspection)

| TEST DETAILS | | | | LEVELS OF CONTROL | | |
|----------------|---------------------------------|---------------------|------------------------|---|-------------------|---------|
| Clause | Requirement | Clause / Sub Clause | Reference | No. of Samples | Frequency | Remarks |
| | DESIGN | | | | | |
| Cl.5 & Table 2 | Height of upper | 5.2.1 | IS 15298 (Part 1):2011 | As per table 1 of IS 15298 (Part 1):2011 / ISO 20344:2004 | Each control unit | |
| -do- | Seat Region | 5.2.2 | -do- | -do- | -do- | |
| -do- | Design A ** | | | -do- | -do- | |
| -do- | Design B | | | -do- | -do- | |
| -do- | Design C | | | -do- | -do- | |
| -do- | Design D | | | -do- | -do- | |
| -do- | Design E | | | -do- | -do- | |
| | WHOLE FOOTWEAR | | | | | |
| -do- | Sole Performance | | | | | |
| -do- | Construction * | 5.3.1.1 | -do- | -do- | Alt Control Unit | |
| -do- | Upper / Outsole bond strength * | 5.3.1.2 | -do- | -do- | Alt Control Unit | |
| -do- | TOE PROTECTION | | | | | |
| -do- | General | 5.3.2.1 | -do- | -do- | Alt Control Unit | |
| -do- | Toe Cap length | 5.3.2.2 | -do- | -do- | Alt Control Unit | |

IS 15298 (Part 2):2002 / ISO 20345:2004
SAFETY, PROTECTIVE AND OCCUPATIONAL
FOOTWEAR FOR PROFESSIONALLY USE PART 2
SPECIFICATION FOR SATETY FOOTWEAR
TABLE 1 LEVEL OF CONTROL

(Para 8.0 of the Scheme of Testing and Inspection)

| TEST DETAILS | | | | LEVELS OF CONTROL | | |
|-----------------|--|---------------------|------------------------|---|-------------------|---------|
| Clause | Requirement | Clause / Sub Clause | Reference | No. of Samples | Frequency | Remarks |
| Cl. 5 & Table 2 | Impact Resistance | 5.3.2.3 | IS 15298 (Part 1):2011 | As per Table 1 of IS 15298 (Part 1):2011 / ISO 20344:2004 | Alt Control Unit | |
| -do- | Compression Resistance | 5.3.2.4 | -do- | -do- | -do- | |
| -do- | Leak proof | 5.3.3 | -do- | -do- | -do- | |
| | UPPER | | | | | |
| -do- | Thickness ** | 5.4.2 | -do- | -do- | Each control unit | |
| -do- | Tear strength * | 5.4.3 | -do- | -do- | -do- | |
| -do- | Tensile properties | 5.4.4 | -do- | -do- | -do- | |
| -do- | Flexing resistance * * | 5.4.5 | -do- | -do- | -do- | |
| -do- | Water vapour permeability and water vapour co-efficient* | 5.4.6 | -do- | -do- | -do- | |
| -do- | PH value * | 5.4.7 | -do- | -do- | -do- | |
| -do- | Hydrolysis ** | 5.4.8 | -do- | -do- | -do- | |
| | Chromium VI content * | 5.4.9 | -do- | -do- | -do- | |

IS 15298 (Part 2):2002 / ISO 20345:2004
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TABLE 1 LEVEL OF CONTROL

(Para 8.0 of the Scheme of Testing and Inspection)

| TEST DETAILS | | | | LEVELS OF CONTROL | | |
|----------------------|---|---------------------|------------------------|---|-------------------|---------|
| Clause | Requirement | Clause / Sub Clause | Reference | No. of Samples | Frequency | Remarks |
| | VAMP LINING | | | | | |
| Clause 5 and Table 2 | Tear strength | 5.5.1 | IS 15298 (Part 1):2011 | As per table 1 of IS 15298 (Part 1):2011 / ISO 20344:2004 | Each control unit | |
| -do- | Abrasion resistance * | 5.5.2 | -do- | -do- | -do- | |
| -do- | Water vapour permeability and water vapour co-efficient | 5.5.3 | -do- | -do- | -do- | |
| -do- | PH value * | 5.5.4 | -do- | -do- | -do- | |
| | Chromium VI content * | 5.5.5 | -do- | -do- | -do- | |
| | QUARTERLINING | | | | | |
| -do- | Tear strength * | 5.5.1 | -do- | -do- | -do- | |
| -do- | Abrasion resistance * | 5.5.2 | -do- | -do- | -do- | |
| -do- | Water vapour permeability and water vapour co-efficient * | 5.5.3 | | | | |
| -do- | PH value * | 5.5.4 | -do- | -do- | -do- | |
| -do- | Chromium VI content * | 5.5.5 | -do- | -do- | -do- | |
| | TONGUE | | | | | |
| -do- | Tear Strength * | 5.6.1 | -do- | -do- | -do- | |

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TABLE 1 LEVEL OF CONTROL

(Para 8.0 of the Scheme of Testing and Inspection)

| TEST DETAILS | | | | LEVELS OF CONTROL | | |
|--------------------|----------------------------------|---------------------|------------------------|---|------------------------|---------|
| Clause | Requirement | Clause / Sub Clause | Reference | No. of Samples | Frequency | Remarks |
| Clause 5 & Table 2 | PH Value | 5.6.2 | IS 15298 (Part 1):2011 | As per table 1 of IS 15298 (Part 1):2011 / ISO 20344:2004 | Each control unit | |
| | Chromium VI content * | 5.6.3 | -do- | -do- | -do- | |
| | OUTSOLE | | | | | |
| -do- | Thickness of non cleated outsole | 5.8.1 | -do- | -do- | Alternate control unit | |
| -do- | Tear strength * | 5.8.2 | -do- | -do- | -do- | |
| -do- | Abrasion resistance | 5.8.3 | -do- | -do- | -do- | |
| -do- | Flexing Resistance | 5.8.4 | -do- | -do- | -do- | |
| -do- | Hydrolysis | 5.8.5 | -do- | -do- | -do- | |
| -do- | Interlayer Bond Strength | 5.8.6 | -do- | -do- | -do- | |
| -do- | Resistance of Fuel Oil | 5.8.7 | -do- | -do- | -do- | |

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SPECIFICATION FOR SATETY FOOTWEAR

TABLE 1 LEVEL OF CONTROL
(Para 8.0 of the Scheme of Testing and Inspection)

Additional Requirements for Special Applications with Appropriate Designations for Marking

| TEST DETAILS | | | | LEVELS OF CONTROL | | |
|--------------------|----------------------------------|---------------------|------------------------|--|-----------|---------|
| Clause | Requirement | Clause / Sub Clause | Reference | No. of Samples | Frequency | Remarks |
| | WHOLE FOOTWEAR | | | | | |
| Clause 5 & Table 3 | Penetration Resistance | 4.3.3 & 5.6 | IS 15298 (Part 1):2002 | As per Table 1 of IS 15298:2011 (Part 1) | | |
| -do- | Electrical Resistance | | | | | |
| | - Conductive footwear | 4.3.4.1 & 5.7 | -do- | -do- | | |
| | -Antistatic Footwear | 4.3.4.2 & 5.7 | -do- | -do- | | |
| -do- | Resistance to harsh Environment | | | | | |
| -do- | Heat Insulation of sole complex | 6.2.3.1 | -do- | -do- | | |
| -do- | Cold Insulation of sole complex | 6.2.3.2 | -do- | -do- | | |
| -do- | Energy absorption of seat region | 6.2.4 | -do- | -do- | | |
| -do- | Water resistance * | 6.2.5 | -do- | -do- | | |
| -do- | Metatarsal Protection | 6.2.6 | -do- | -do- | | |
| -do- | Ankle protection | 6.2.7 | -do- | -do- | | |
| | UPPER | | | | | |
| -do- | Water penetration and water | 6.3.1 | -do- | -do- | | |

| | | | | | | |
|------|---------------------------|-------|------|------|--|--|
| | absorption * | | | | | |
| -do- | Construction * | 6.3.2 | -do- | -do- | | |
| -do- | Cut resistance * | 6.3.3 | -do- | -do- | | |
| | OUTSOLE | | | | | |
| -do- | Cleated Outsole | | | | | |
| | - Cleated Area | 6.4.1 | -do- | -do- | | |
| | - Thickness | 6.4.2 | -do- | -do- | | |
| | - Height | 6.4.3 | -do- | -do- | | |
| -do- | Resistance to hot contact | 6.4.4 | -do- | -do- | | |

Note * - Applicable only for classification I

* * - Applicable only for classification II

* - Absence of * applicable to both classification I & II