BUREAU OF INDIAN STANDARDS

DRAFTS FOR COMMENTS ONLY

(*Not to be reproduced without permission of BIS or used as an Indian Standard*)

भारतीय मानक मसौदा

जूते काले करने के ब्रश — विशिष्टि

(आई एस 3008 का पाँचवाँ पुनरीक्षण)

Draft Indian Standard

BRUSHES, SHOE BLACKING — SPECIFICATION

(Fifth Revision of IS 3008)

ICS 61.060; 87.100

Brushware, Polishes, Lac, Lac Products Sectional Committee, CHD 23	Last Date for Comments: **09 October 2025**

FOREWORD

(*Formal clause will be added later*)

The brush, shoe polishing, as its name denotes, is used for polishing of shoe, leather, etc. Brush, shoe blacking is a close-set pattern brush opposed to brush, shoe polishing. This permits easy take up of the polish on the brush as the filling material does not spread out because of the close-set pattern.

This standard was first published in 1964 and subsequently revised in 1971, 1993, 1997 and 2012 to meet the changing requirements of the users through better utilization of available natural resources and technology in the country.

In this revision the following changes have been incorporated:

a) The reference clause has been updated;
b) The term ‘approved sample’ has been replaced with ‘approved tender sample’ under the terminology clause.
c) A new clause for ‘types of shoe polishing brushes’ has been introduced;

d) The filling material requirement has been modified in accordance with the newly introduced clause for ‘types of shoe polishing brushes’;
e) A new requirement for the thickness of filaments has been introduced under dimension clause;
f) The weight for the pull test has been modified from 5 kg to 2 kg;
g) The mass of filling material per finished brushes has been modified as 30 g for both Type 1 and Type 2 brushes;
h) Alternatively, IS 539 has been included to specify that naphthalene balls, as defined in IS 539, shall be used in the packing box for the brushes; and
j) A new requirement has been introduced to specify the shelf-life of the brushes;
k) The marking clause has been updated.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Draft Indian Standard

BRUSHES, SHOE BLACKING — SPECIFICATION

(*Fifth Revision*)

1 SCOPE

This standard prescribes requirements and methods of sampling and test for brush suitable for shoe blacking.

2 REFERENCES

The standards listed in Annex A contain provisions, which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of these standards.

3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS 707, IS 5060 and the following shall apply:

3.1 **Approved Tender Sample**

The sample accepted by the indentor or purchaser or inspection authority as basis for supply.

NOTE — When a sample is tested and approved by the indentor or purchaser or an inspection authority, the results of such tests as will permit the supplier to meet the limits imposed by the specification for deliveries, shall be made available to the supplier. However, all tests need to be carried out on the tender sample.

4 TYPES

4.1 Brushes, shoe polishing shall be of two types, namely:

a) Type 1 — Bristles filled brushes; and
b) Type 2 — Filament filled brushes.

5 REQUIREMENTS

5.1 Materials

5.1.1 *Filling Material*

5.1.1.1 *For Type 1*

Stiff bristles of natural colour (*see* IS 1844) shall be used. They shall be a close match to those used in the approved tender sample.

5.1.1.2 *For Type 2*

Man-made fibres shall be made from virgin polypropylene (PP) or polyethylene terephthalate (PET).

5.1.2 *Back and Board*

5.1.2.1 Back and board shall be made of HDPE/ LDPE/ FRP/PP or timber.

5.1.2.2 Any of the timber species listed in Annex B shall be used in the manufacture of the wooden portion of the brush.

5.1.2.3 The timber shall be reasonably straight grained and well-seasoned to a moisture content not exceeding 20 percent when tested by either electronic moisture meter method or oven-drying method. However, in case of dispute, the oven-drying method as specified in Annex C shall be the referee method.

5.1.2.4 The timber shall be free from brashness, any kind of biological or non-biological deterioration insect attack, centre heart (pith), knots (except pin knot), crack, warp or other defects which may reduce the life of the brush or affect its utility.

5.1.3 *Wire*

Galvanized iron wire of minimum 0.38 mm diameter for fastening tufts of filling material in case of wiredrawn brushes shall be used.

5.1.4 *Staples*

Staples of bright iron wire of minimum 0.70 mm in diameter shall be used.

5.1.5 *Nails*

Mild steel nails, minimum 10 mm long and minimum 1.2 mm in diameter shall be used for securing back over the exposed portion of the board. Suitable adhesive may be used if back and board are manufactured from HDPE/ LDPE/ FRP/ PP for fixing back and board.

5.2 Manufacture

5.2.1 The brush shall conform to the shape and design shown in Fig. 1.

5.2.2 The back and board, if made of timber, shall be manufactured from the same species of timber.

5.2.3 The board shall be drilled with 73 ± 2 tuft holes of the shape and size as indicated in Fig. 1.

5.2.4 *For Wire-Drawn Brush*

The tufts of hair shall be firmly drawn into the tuft holes by means of galvanized iron wire and thoroughly bottomed so that they may not be subsequently knocked back. The back shall be secured with minimum 6 mild steel nails as shown in Fig.1 in such a manner that they do not foul the wire or the filling materials.

5.2.5 *For Staple-Set Brush*

No back is required. The tufts of filling material shall be cross-stapled and securely set to the bottom of the tuft holes by machine to give the shape of the brush as shown in Fig. 1.

5.2.6 The filling material shall be trimmed straight faced to give the shape as shown in Fig. 1.

5.3 Dimensions and Tolerances

5.3.1 *Dimensions*

The brush shall conform to the dimensions given in Fig. 1.

5.3.1.1 *Thickness of Filaments*

The Thickness of both PP filaments and PET filaments to be used in blacking brush shall be 0.22 mm.

5.3.2 *Tolerances*

5.3.2.1 The tolerance on the linear dimension shall be as specified in Table 1.

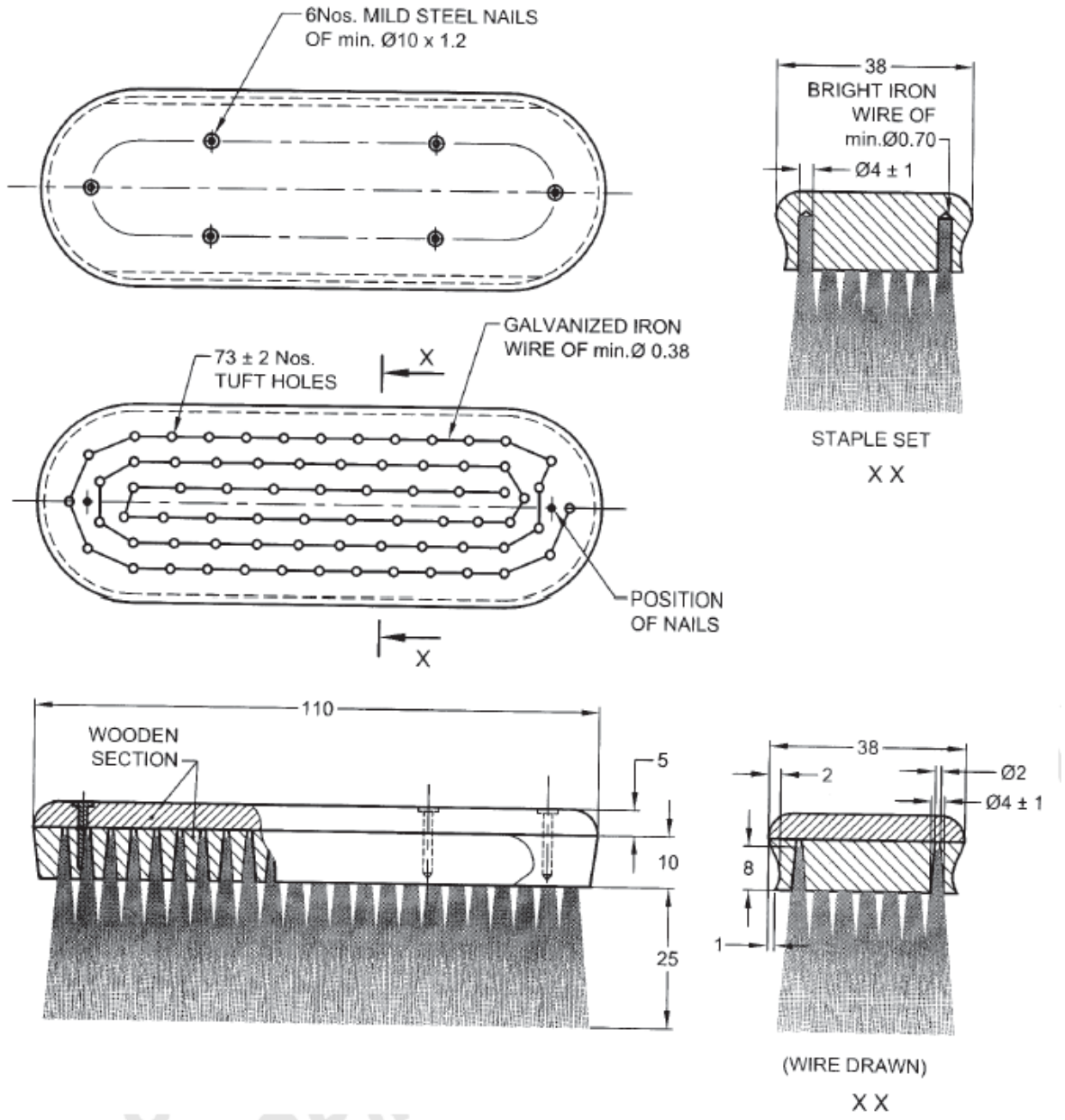
Table 1 Tolerances on the Linear Dimensions

(*Clause* 5.3.2.1)

Sl No.	**Nominal Dimension** mm	**Tolerance** mm
(1)	(2)	(3)
i)	Up to 15	± 1.0
ii)	Over 15 but below 40	± 2.0
iii)	40 and above	± 3.0

5.3.2.2 A tolerance of ±1.0 mm shall be allowed on the diameter of the tuft holes.

5.3.2.3 The tolerances specified in **5.3.2.1** and **5.3.2.2** shall not apply to filling material for which minimum lengths have been prescribed in **5.4**.



All dimensions in millimetres.

FIG. 1 BRUSH, SHOE BLACKING

5.4 Initial Length of Filling Material

The total length of 75 percent of the filling materials used, when tested by pulling out ten tufts from the finished brush shall be not less than 60 mm.

5.5 Identification of Filling Material

In case of dispute regarding the origin of filling material, microtomy through microscopic examination and comparison of cross-sections of the filling material shall be resorted to. The section thus prepared shall be compared with Fig. 7 and Fig. 8 of IS 8592.

5.6 Pull Test

The force required for pulling out an individual tuft shall not be less than 2 kg for 1 min when tested according to the method given in Annex D.

5.7 Mass of Filling Material Per Finished Brush

Minimum mass of filling material per brush when determined by unfastening the tufts by removal of galvanized iron wire or staples shall be 30 g for both Type 1 and Type 2 . The average mass of the filling materials of 3 brushes drawn at random from the tendered quantity not exceeding 300 brushes and 6 brushes exceeding 300 brushes.

5.8 Workmanship and Finish

5.8.1 The wooden portion of the brush shall be finished smooth and suitably polished or painted.

5.8.2 In general workmanship and finish, the brush shall match the approved tender sample.

5.9 Preservation

The filling material of the brush shall be liberally dusted with a mixture of 5 parts (by mass) of Lindane 6.5 percent DP (*see* IS 14834) and 95 percent by mass of French chalk (*see* IS 380). Alternatively, naphthalene balls (*see* IS 539) shall be used in the packing box for the brushes.

5.10 Shelf-Life

The brushes shall have a shelf-life of one year from the month of manufacturing, provided proper storage conditions are used and adequate precautions are taken for preserving them as given under IS 3451 (Part 2).

6 PACKING AND MARKING

6.1 Packing

6.1.1 The packing shall be as agreed to between the purchaser and the supplier, but it shall be such as to ensure retention of the preservative (*see* **5.9**).

6.2 Marking

6.2.1 Unless otherwise agreed to between the indentor/ purchaser and the supplier, each brush shall be legibly and indelibly marked or stamped with the following:

a) Type of the brush

b) Name of the manufacturer or trade-mark, if any;

c) Month and year of the manufacture; and

d) Any other information, as agreed to between the purchaser and the supplier.

6.2.1.1 Hairs of banned animals under *Wild Life Protection Act* are not used, shall appear in the final package.

6.2.2 In addition to the marking specified in **6.2.1** the brush shall also be marked ‘pure cow/buffalo tail hair’ on the back of the brush.

6.2.3 *BIS Certification Marking*

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act*, 2016 and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

7 SAMPLING

7.1 Tender Samples

7.1.1 The supplier shall submit four identical tender samples of brushes of each denomination for approval.

7.1.2 The indentor or inspection authority shall retain one of the four approved tender samples against each item till the completion of the order.

7.2 The method of drawing representative samples of the brushes and the criteria for conformity shall be as prescribed in Annex E.

8 CARE AND MAINTENANCE

Guidance on care and maintenance of brushes is given in IS 3451 (Part 2).

ANNEX A

(*Clause* 2)

LIST OF REFERRED STANDARDS

IS No.	*Title*
IS 380 : 2023	French chalk, technical — Specification (*third revision*)
IS 539 : 1974	Specification for naphthalene (*second revision*)
IS 707 : 2011	Timber technology and utilization of wood, bamboo and cane — Glossary of terms (*third revision*)
IS 1844 : 1993	Bristles — Specification (*second revision*)
IS 3451 (Part 2) : 2024	Care and maintenance of brushes — Code of practice: Part 2 Brushes other than pan-set brushes (*first revision*)
IS 5060 : 2024	Brushware industry — Glossary of terms (*first revision*)
IS 8592 : 1977	Methods for identification of brush filling materials of animal origin
IS 14834 : 2000	Lindane dusting powder — Specification

ANNEX B

(*Clause* 5.1.2.2)

SPECIES OF TIMBER FOR MANUFACTURE OF WOODEN PORTION OF BRUSH

B-1 The list of species of timber approved for the manufacture of wooden portion for brushes, shoe polishing, is given below:

Trade Name		***Botanical Origin***
Roman	**Devanagari**	
Aini	ऐनी	*Artocarpus hirsutus* Lam., fam. *Moraceae*
Banati	बनाती	*Lophopetalum wightianum* Arn., fam. *Celastraceae*
Bijasal	बीजसाल	*Pterocarpus marsupium* Roxb., fam. *Fabaceae*
Jam (Black Berry)	जैम	*E. cymosa* Roxb., Fl Ind.
Champak	चम्पक	*Michelia champaca* Linn., fam. *Magnoliaceae*
Chickrassi	चिकरासी	*Chukrasia tabularis* A. Juss., fam. *Meliaceae*
Dhaman	धामन	*Grewia tiliifolia* Vahl., fam. *Tiliaceae*
Gamari (Gumhar)	गमारी (गुम्हार)	*Gmelina arborea* Roxb., L., fam. *Verbenaceae*
Krishnachura (Gold Mohar)	कृष्णचूरा	*Poinciana pulcherrima* Roxb., fam. *Fabaceae*
Haldu	हल्दू	*Adina cordifolia* Hook f. fam. *Rubiaceae*
Kadam	कदम	*Nauclea cadamba* Roxb., fam. *Rubiaceae* *Sarcocephalus cadamba* Kurz.
Kaim	कैम	*Mitragyna parvifolia* (Roxb.) Korth. Syn. *Stephegyne parvifolia* Korth, fam. *Rubiaceae*
Kanju	कांजू	*Holoptelea integrifolia* (Roxb.) Planch fam. *Ulmaceae*
Karanja	करांजा	*Galedupa indica* Lam., fam. *Fabaceae*
Kathal	कटहल	*Artocarpus heterophyllus* Lam. Syn. *A integrifolia* Auct., fam. *Moraceae*
Kuthan	कूथन	*Hymenodictyon excelsum* Wall, fam. *Rubiaceae*
Lambapatti	लांबापत्ती	*Planchonella longipetiolata* H.J. Lam., Syn. *Sideroxylon longipetiolata* King and Prain, fam. *Sapotaceae*
Aam (Mango)	आम	*Mangifera indica* Linn., fam. *Anacardiaceae*
Mehagini	महगनी	*Swietenia spp.*
Nim-Chameli	नीम-चमेली	*Millingtonia hortensis* Linn. F. fam. *Bignoniaceae*

Kodapalai (piney)	कोडपलाई (पिने)	*Kingiodendron pinnatum* Harms, Syn. *Hardwickia pinnata* Roxb., fam. *Leguminosae*
Saibabla	सैबाबला	*Mimosa arabica* Roxb. Fl. Ind.
Sirish	सिरिश	*Mimosa sirisa* Roxb. Fl. Ind.
Toon	तून	*Toona ciliata* Roem., Syn. *Cedrela toona* Roxb., fam. *Meliaceae*

ANNEX C

(*Clause* 5.1.2.3)

DETERMINATION OF MOISTURE CONTENT OF TIMBER

C-1 TEST SPECIMEN

The entire block used in the brushes, shoe polishing may form the test specimen for determination of moisture content or a coupon cut from the test specimen may as well, be used for moisture content determination. When for any reason additional determination of moisture content is required, separate samples shall be prepared from the same material as is used in preparing the test specimens. Smaller specimens may be used when deemed necessary. The test shall be carried out immediately after cutting the specimen.

C-2 APPARATUS

C-2.1 Air Oven — Suitable to control the temperature of 105 °C ± 2 °C.

C-2.2 Weighing Balance

C-3 PROCEDURE

Weigh accurately each test specimen. This specimen shall then be dried in a ventilated oven at a temperature of 105 °C ± 2 °C. The weight shall be recorded at regular intervals. The drying shall be considered to be complete when the variation between last two weighings, does not exceed 0.002 g. The final weight shall be taken as oven dry weight.

C-4 CALCULATION

The moisture content, expressed as a percent of the dry mass is given by the following formula:

$$\text{Moisture content (percent of the dry mass)} = \frac{W_1 - W_0}{W_0} \times 100$$

where

W_1 = initial mass of the test specimen, in g; and

W_0 = dry mass of the test specimen, in g.

ANNEX D

(*Clause* 5.6)

DETERMINATION OF PULL STRENGTH

D-1 APPARATUS

A simple instrument as shown in Fig. 2 can be used for testing the pull strength. This unit is suitable for mounting on wall. It consists of dial force gauge/ weighing scale (0 kg to 10 kg) operating on spring (*A*) mounted on wooden plate (*B*). A tubular tuft holder (*C*) is hung on the hook of dial gauge. A clamp for holding the shoe blacking brush (*E*) is provided which is movable downward and upward with a screw (*F*). The dial force gauge/weighing scale shall be calibrated having traceability to NPL.

NOTE — Manufacturer may use sophisticated electronic instrument available in market to determine the pull strength.

D-2 PROCEDURE

D-2.1 Fix a brush with bristles in upward direction in the brush holder with the help of screw (*G*).

D-2.2 Select 10 tufts at random and insert al bristles of one tuft in the hole provided at the bottom of tubular tuft holder (*C*). Care should be taken not to allow bristles from adjacent tuft to enter in to the hole. Fix the bristles firmly with the help of screw (*D*).

D-2.3 Adjust the pointer on dial to zero by adjustment of screw (*F*).

D-2.4 Move down the brush holder slowly with screw (*G*) watching the pointer on dial carefully till it reaches 5 kg mark and keep it there for 1 min. Then remove the brush from the gadget and examine. The bristles of any tuft shall not come out of the brush during the test.

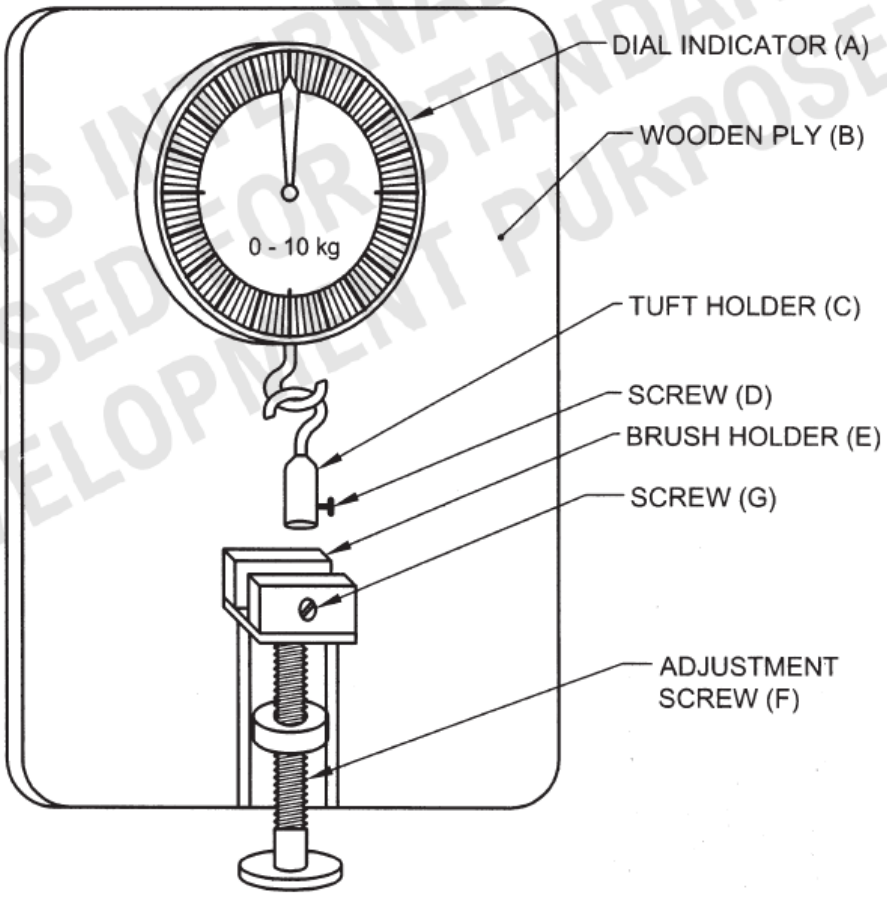


FIG. 2 INSTRUMENT FOR DETERMINATION OF PULL STRENGTH

ANNEX E

(*Clause* 7.2)

SAMPLING AND CRITERIA FOR CONFORMITY

E-1 GENERAL

Samples of brushes for testing shall be selected at random in the manner indicated below.

E-2 METHOD OF SAMPLING

E-2.1 Lot

In any consignment, all the brushes of the same size and quality shall be divided into groups of 1 000 brushes or less and each such group shall constitute a lot. Care shall be taken to ensure that brushes included in a lot do not differ in construction as far as possible.

E-2.1.1 The conformity of the brushes in a lot to the requirements of this standard shall be ascertained for each lot separately. The number of brushes to be selected for this purpose shall be in accordance with col (2) and (3) of Table 2.

E-2.1.2 The brushes shall be selected at random. To ensure randomness of selection one of the following procedures is recommended for use:

a) If the brushes in a lot are packed in one box, then starting from any brush, count them in any suitable order as 1, 2, 3,.... up to r which is the integral part of *N/n* (*N* and *n* being the lot size and sample size respectively). Every *r*th brush, thus counted shall be drawn to constitute the sample; and
b) If the brushes in a lot are packed in more than one box, approximately equal number of brushes shall be picked up at random from as many boxes as possible so as to obtain the required number of brushes as specified in Table 2.

Table 2 Scale of Sampling

(*Clauses* E-2.1.1 and E-2.1.2)

Sl No.	**No. of Brushes in the Lot** *N*	**No. of Brushed to be Selected** *n*
(1)	(2)	(3)
i)	Up to 10	2
ii)	11 to 25	3
iii)	26 to 50	4
iv)	51 to 100	5
v)	101 to 150	6
vi)	151 to 300	7
vii)	301 to 500	8
viii)	501 to 750	9
ix)	751 to 1 000	10

E-3 NUMBER OF TESTS

Tests for all the brushes shall be conducted on the individual brushes in the sample.

E-4 CRITERIA FOR CONFORMITY

For declaring the conformity of the lot to the requirements of this standard, all the brushes selected according to **E-2.1.2** shall satisfy the relevant requirements given in **5.1** to **5.8**.

NOTE — For description of bristles (*see* **5.1.1.1**) and workmanship and finish (*see* **5.8**), the brushes selected according to **E-2.1.2** shall be matched with the approved tender sample which is suitably stamped and sealed by the purchaser or the inspection authority and kept at a place agreed to between the two.