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Draft Indian Standard

**CARE AND MAINTENANCE OF BRUSHES — CODE OF PRACTICE
PART 2 BRUSHES OTHER THAN PAN-SET BRUSHES**

[First Revision of IS 3451 (Part 2)]

(ICS 25.220, 87.100)

Brushware, Polishes, Lac, Lac Products Sectional Committee, CHD 23	Last Date for Comments : 16 th February 2024
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Brushware, Polishes, Lac, Lac Products Sectional Committee, CHD 23

FOREWORD

(Formal clause shall be added later)

The durability and the standard of performance of a brush greatly depend upon the care and maintenance of the same, both by the manufacturer and the consumer. Very often it is found that improper handling and careless storing of brushes lead not only to uneconomical use but also to unsatisfactory performance. Thus the formulation of a standard code of practice for care and maintenance has been thought of for helping the manufacturers as well as consumers of the brushes. Care and maintenance for pan-set brushes has already been dealt in Part 1. This standard (Part 2) covers the care and maintenance of brushes other than pan-set brushes.

Care and maintenance of brushes differ, depending on their composition, construction and uses.

This standard was first published in 1975. This first revision has been taken up in order to bring out the standard in the latest style and format of the Indian Standards. The relevant clauses have been added and the references have been updated.

*Draft Indian Standard***CARE AND MAINTENANCE OF BRUSHES — CODE OF
PRACTICE****PART 2 BRUSHES OTHER THAN PAN-SET BRUSHES***(First Revision)***1 SCOPE**

This standard (Part 2) lays down the practice to be followed in the care and maintenance of brushes other than pan set, that is, either stapled set, or wire drawn set or twisted-in-wire set.

2 REFERENCES

The standards listed below contain provisions which through reference in this text, which constitute provisions of this standard. At the time of publications, 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 editions of the standards listed below:

<i>IS No.</i>	<i>Title</i>
IS 5060 : 1969	Glossary of terms used in brushware industry

3 TERMINOLOGY

For the purpose of this standard, definitions of terms given in IS 5060 shall apply.

4 CLASSIFICATION

The brushes may be classified into two groups depending on: (a) the filling materials used, and (b) the end use.

4.1 The following shall be the classification of brushes on the basis of filling material used:

Group A	Made of animal hair, namely, bristle, catte-tail hair, etc.
Group B	Made of vegetable fibre, namely, coca fibres, Palmyra fibre, Manila fibre, etc.
Group C	Admixture of animal hair and vegetable fibre in different proportions.
Group D	Synthetic fibre, namely, nylon monofilament.
Group E	Made of metallic wire, namely, steel wire, brass wire, etc.

4.2 The following shall be the classification of brushes on the basis of end use:

Classification 1 — Brushes used for hygienic purpose, namely, tooth brush, hair brush, etc.

Classification 2 — Brushes used for sanitation and cleaning purpose, namely, push sweeping brushes, banister brushes, carriage washing brushes, etc.

5 CARE AND MAINTENANCE BEFORE USE**5.1 Damage Due to Insect or Micro-Organisms to Brushes Belonging to Groups A, B and C****5.1.1 Insect Damage**

New and unused brushes belonging to Groups A and C, which are made with animal hair either entirely or partially as filling materials, are more susceptible to attack of beetles, moths, etc., which directly eat the filling materials and thus damage the brush as a whole gradually. Other insects like pig lice and horse lice also do similar damage.

5.1.2 Damage Due to Bacteria and Moulds

Certain forms of bacteria and moulds, such as mildew attack, causes the filling materials discolouration and rotting. Fungi attack is very common to the filling materials of vegetable origin, when kept in moist atmosphere.

5.1.3 To prevent insect attack, all costly brushes of Groups A, B and C excepting tooth brushes should be wrapped with tissue paper or polythene sheets and kept in a closed container together with naphthalene flakes or balls. The brushes may also be dusted with DDT powder. Tooth brush should be hygienically packed individually in paper board or plastics container.

5.1.4 The tip ends of animal hair are the most vulnerable points of attack. Soft hair brushes are susceptible to such attack. Brushes of Groups A and C should, therefore, be flitted periodically to dislodge the eggs if laid down in the interval, after exposing to sun for a while.

5.2 Sterilization

Brushes of Groups A1 and B1 should be sterilized thoroughly by washing the same in a hot disinfecting solution of 1 percent antiseptic solution or in hot water before use. This process should be continued periodically during the whole span of utilization.

5.3 Prevention from Dust and Polluted Atmosphere

Brushes belonging to Groups A1 and D1 and clothes brushes of any group should be kept in dust-proof packet to protect against polluted atmosphere.

5.4 Damage Due to Corrosion

5.4.1 Brushes belonging to Group E and brushes of other groups, which are twisted in wire generally get damaged by corrosion of the metallic portion especially when the metal is ferrous.

5.4.2 To protect from this type of damage, the metallic portion of the brush - whether filling materials or twisted wires-should be covered with a thin coat of drying oil and should then be stored in dry place (if possible, having been wrapped in oil paper or tar paper).

6 CARE OF BRUSHES DURING USE

6.1 Choice of Brush

6.1.1 Care in the selection of brush for a particular purpose is necessary for economic performance.

6.1.2 A brush of correct size and type should be selected depending on the nature of work. For instance, clothes brush should be used for dusting off clothing and hair brush for dressing hair and not *vice versa*. Similarly, nail cleaning brush should be used for cleaning nails only. Again in case of tooth brush, adult size should be used by adults and junior size by juniors. The requisite size and quality of tooth brush should be determined depending on the nature of the teeth and the condition of the gums. This holds good for all groups and types of brushes.

6.2 Correct Use

All types of brushes belonging to Groups A, B, C, and D should be used with light pressure. A few examples citing the proper use of common types of brushes are given in **6.2.1** to **6.2.9**.

6.2.1 Tooth Brush

The brush with paste should be applied slowly on the teeth in circular movement, with mild pressure, to clean the teeth. Unusual pressure will not only bring deformity in the filling materials earlier, but may harm the gums and teeth.

NOTE — Care should be taken not to use deformed and worn cut brush. A brush once used by one should not be used by others.

6.2.2 Nail Cleaning Brush

This brush should be used slowly with straight to-and-fro motion with mild pressure to clean the nails specially their tips. Unusual pressure may cause harmful effect on the finger tips.

6.2.3 Hair Brush

This is required for dressing hair, simultaneously cleaning foreign matter from them and massaging the head. With a straight stroke and mild pressure the brush should be driven through the hair just over the head, otherwise the skin may get damaged. In this case also the brush used by one should not be used by others.

6.2.4 Clothes Brush

This brush is used for dusting off or dry cleaning of clothing mainly. Sometimes it is used in conjunction with some sort of cleaning solution. In all types of functions, straight stroke with mild pressure is advisable. Deep and hard stroke may spoil the texture of the cloth cleaned.

6.2.5 Carriage Washing Brush

This brush is required for the removal of dirt and undesirable marks from painted surfaces of the carriage body accumulated during service by some sort of cleaning solution, generally soluble in water.

6.2.5.1 A circular movement with mild pressure throughout the process of washing including the application of cleaning solution is advisable. A heavy pressure will cause deformity and unusual wearing of the filling materials, at the same time it may leave undesirable scratch marks on the surface cleaned.

6.2.6 Banister Brush

This brush is used for dry sweeping. This should be applied in straight stroke with light pressure. Heavy pressure may impart scratch marks, and deformity in the shape of filling material may develop earlier.

6.2.7 Shoe Blacking and Shoe Polishing Brushes

Both the brushes are filled in with cattle tail hair or coarse bristles. The first one is required for the application of shoe cream or shoe polish on the leather surface of mainly shoes, while the second one is required for glazing the same. In the first case a circular stroke will give better effect while in the second case straight stroke will give better effect. In both the cases, however, mild pressure should be advocated, as heavy pressure will only cause deformity and unusual wearing of the filling materials.

6.2.8 Brushes with Metallic Filling Material

These types of brushes are generally required for dislodging/removing foreign materials from hard metallic surfaces. In these cases also, the brushes are required to rub down against the surface with moderate pressure and in some cases circular stroke gives better results. Heavy pressure will only spoil the shape of the brush either by unusual wearing or by deformation of filling materials.

6.2.9 Boiler Tube Brush

This brush is made of steel wire set in by twisted wire. The size of the brush should be selected just to suit the tube. A size slightly bigger than the inner diameter of the tube is preferable. Too big a size will spoil both the brush and the tube and a smaller size will fail to serve the purpose.

6.2.9.1 After use, this brush should be washed thoroughly with kerosene and stored in dry place in the vertical position so that the filling material does not get any deformity.

7 CARE AND MAINTENANCE AFTER USE

7.1 Cleaning

7.1.1 All types of brushes belonging to Groups A, B, C and D should be cleaned thoroughly by flitting in case the brushes are used dry, and by washing with clean water when they are used wet in conjunction with cleaning solution soluble in water. It should then be dried preferably by hot blast of dry air and stored in a clean dry place.

7.1.2 In case of tooth brush, nail brush, clothing brush, hair brush, etc., they should be kept in a dust-proof packet after thoroughly cleaning and drying.

7.1.3 In case of shoe blacking and shoe polishing brushes, frequent washing is not necessary, but they should be kept in dust-proof packet. Occasionally, these brushes may be required to be cleaned by kerosene, then by soap solution (preferably non-causticized one), finally by thorough rinsing in water, dried and kept in dust-proof packet.

7.1.4 Typewriter brushes should be cleaned every time after use in petrol and kept in dust-proof packet when dried.

7.1.5 Metallic brushes (Group E) especially of ferrous type should never be washed in water. In case cleaning is necessary, kerosene should be used as cleaning medium. But after such cleaning the brush should be dipped into a non-drying oil bath, soluble in kerosene, to guard against corrosion, after which they should be wrapped in oil paper or tar paper and stored in dry place. This film of non-drying oil should, however, be washed before use on the next occasion.

7.1.6 *De-rusting*

In case the filing material or the twisted wire of iron, as the case may be, in brushes belonging to Group E has already started corroding, it is advisable to de-rust the affected portion by dipping into a solution containing preferably de-rusting cum phosphating agent. After this, the brush should be treated with a coat of varnish or boiled linseed oil by dipping it in a bath containing varnish or oil as the case may be, for protecting against further corrosion.

7.2 Treatment to Wooden Handles

The wooden handles of brushes, which are used frequently in conjunction with water or some cleaning solution that affect the wooden handles, should occasionally be painted or varnished or at least treated with a coat of boiled linseed oil in order to protect them from rotting.

8 RECONDITIONING

8.1 When deformity of filling materials of brushes belonging to Groups A, B, C or D has developed due to long or improper use, or due to wrong process of storing, they may be reconditioned by trimming the obstinate filling materials, to the extent necessary, in case the same could not be brought to proper shape by any mechanical means.

8.2 In case this deformity takes place in metallic brushes of Group E, in the form of spreading out of filling materials, the same may be set right by straightening them through some mechanical device.