

# DRAFT UGANDA STANDARD

First Edition  
2020-mm-dd

---

---

## Sweeping broom (push brush) — Specification

---

---



Reference number  
DUS 2226: 2020

© UNBS 2020

**Compliance with this standard does not, of itself confer immunity from legal obligations**

**A Uganda Standard does not purport to include all necessary provisions of a contract. Users are responsible for its correct application**

© UNBS 2020

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilised in any form or by any means, electronic or mechanical, including photocopying and microfilm, without prior written permission from UNBS.

Requests for permission to reproduce this document should be addressed to

The Executive Director  
Uganda National Bureau of Standards  
P.O. Box 6329  
Kampala  
Uganda  
Tel: +256 414 333 250/1/2/3  
Fax: +256 414 286 123  
E-mail: [info@unbs.go.ug](mailto:info@unbs.go.ug)  
Web: [www.unbs.go.ug](http://www.unbs.go.ug)

## Foreword

Uganda National Bureau of Standards (UNBS) is a parastatal under the Ministry of Trade, Industry and Cooperatives established under Cap 327, of the Laws of Uganda, as amended. UNBS is mandated to coordinate the elaboration of standards and is

- (a) a member of International Organisation for Standardisation (ISO) and
- (b) a contact point for the WHO/FAO Codex Alimentarius Commission on Food Standards, and
- (c) the National Enquiry Point on TBT Agreement of the World Trade Organisation (WTO).

The work of preparing Uganda Standards is carried out through Technical Committees. A Technical Committee is established to deliberate on standards in a given field or area and consists of key stakeholders including government, academia, consumer groups, private sector and other interested parties.

Draft Uganda Standards adopted by the Technical Committee are widely circulated to stakeholders and the general public for comments. The committee reviews the comments before recommending the draft standards for approval and declaration as Uganda Standards by the National Standards Council.

The committee responsible for this document is Technical Committee UNBS/TC 5, [*Chemicals and Environment*], Subcommittee SC 03, [*Plastics and related products*].



# Sweeping broom (push brush) — Specification

## 1 Scope

This Working Draft Ugandan Standard specifies the requirements, sampling and test methods for sweeping brooms (push brush)

## 2 Normative references

There are no normative references in this document.

## 3 Terms and definitions

For the purposes of this document, the following shall apply. ISO and IEC maintain terminological databases for use in standardization at the following addresses: — ISO Online browsing platform: available at <http://www.iso.org/obp> For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **block**

part on which the filling material “bristles” are secured

### 3.2

#### **bristle**

stiff animal hair, feather, extruded plastic, or natural material e.g. sisal fibre, coconut fibre, secured in a block.

### 3.3

#### **broom**

cleaning tool consisting of usually stiff or soft fibres (often made of materials such as plastic, hair, or corn husks) which may be attached to, and roughly parallel to, a cylindrical handle which may be plastic, wooden, or metallic

### 3.4

#### **plastic**

synthetic material made from a wide range of organic polymers such as polyethylene, Polyvinyl chloride (PVC), nylon, high-density polyethylene (HDPE), polyethylene terephthalate (PET), Phenolic resin, Polypropylene, and ultra-high-molecular-weight polyethylene (UHMWPE, UHMW)

### 3.5

#### **tuft**

bunch or cluster of bristles, usually flexible, attached or fixed closely together at the base and loose at the upper ends

### 3.6

#### **wood**

hard fibrous material that forms the main substance of the trunk or branches of a tree or shrub

### **3.7**

#### **consignment**

quantity of brooms of the same specifications made available for dispatch at the same time

### **3.8**

#### **lot**

definite quantity of sweeping brushes that are manufactured or produced under conditions that are presumed uniform

### **3.9**

#### **brush**

consists of the block and the bristles

## **4 Requirements**

### **4.1 General requirements**

**4.1.1** The brooms shall have smooth finish and all their components (block, bristles and handle) shall be free from imperfections and defects which may affect the appearance or impair their serviceability.

**4.1.2** Plastic components shall be made of plastic which does not significantly deflect while the broom is in use

**4.1.3** Wooden components shall be free from brashness, any biological or non-biological deterioration, insect attack, pith, knots (except pin knots), cracks and any other defect that may reduce the life of the brush and affect its utility.

**4.1.4** The broom shall consist of a brush and a handle

**4.1.5** The brooms may be in various colours, designs and sizes

#### **4.1.6 Bristles**

**4.1.6.1** The bristles shall be made of animal hair, plastic (synthetic), natural material such as coconut fibre, sisal fibre or any other suitable material.

**4.1.6.2** The bristles shall be of uniform length, size, and of the same material.

**4.1.6.3** The bristles shall not be loose and shall be firmly secured in the block using nails, wires, staples or any suitable glue

#### **4.1.7 Block and handle**

**4.1.7.1** Material used for making the blocks and handles shall be made of plastic, metal, wood or any suitable material.

**4.1.7.2** Handles shall fit firmly in the block

**4.1.7.3** The wooden portion of block and handle shall be smoothly finished and suitably varnished, wrapped or painted

**4.1.7.4** Dimensions of the block and handle shall be as per the agreement between the supplier and purchaser.

**4.1.7.5** Metallic handles shall be insulated

## 4.2. Specific Requirements

4.2.1 The sweeping brush shall conform to the requirements given in Table 1 when tested in accordance with the test methods specified therein

**Table 1. Specific requirements for sweeping brooms**

Characteristic	Requirement		Test method
	wooden	plastic	
Moisture content, %, max	15	-	Annex A
Tuft Strength, N	No pulling out of an individual tuft from the block shall be observed		Annex B
Strength of the bristles in a tuft	Not more than 2% of the bristles subjected to the tensile load shall be extracted before the force reaches 50.0 N in approximately 15 s		Annex B

4.2.2 When metal is used as any of the components of the broom, it shall be corrosion-resistant or shall be protected against corrosion when tested in accordance with Annex C.

## 5. Labelling

The brush or its package shall be legibly and indelibly marked or stamped with the following instructions:

- a) Name of product as "sweeping broom";
- b) Name and physical address of manufacturer;
- c) Date of manufacture;
- d) Batch number;
- e) Country of origin and
- f) Code of resin identification (plastic)

## 6 Packaging

Sweeping brooms shall be packaged in appropriate materials that shall protect the product integrity during transportation and storage.

## 7 Sampling

Sweeping brooms shall be randomly sampled in accordance with Annex D. Any sample of sweeping brooms randomly selected from a consignment shall comply with the requirements of this standard and shall be a representative of the entire consignment

## Annex A (normative)

### Determination of moisture content of wood

#### A.1 Test Specimen

The entire block used in the broom, may form the test specimen for the determination of moisture content or a piece 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 sample 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.

#### A.2 Procedure

**A.2.1** Weigh accurately each test specimen.

**A.2.2** Dry the specimen in a ventilated oven at  $105\text{ °C} \pm 2\text{ °C}$  until the weight becomes constant between two successive weightings made at an interval of not less than one hour.

#### A.3 Calculation

The moisture content, expressed as a percentage of the oven-dry weight;

$$\frac{W_1 - W_0}{W_0} \times 100$$

Where,

$W_1$  is initial weight in g of the test specimen, and

$W_0$  is oven-dry weight in g of the test specimen



## Annex B (normative)

### Determination of pull strength

#### B.1 General

A simple instrument as shown in Fig. B1 can be used for testing the pull strength. This unit is suitable for mounting on wall. It consists of dial force gauge /weighing scale (0-10 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 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

#### B.2 Procedure

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

**B.2.2** Insert all 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 tufts to enter in to the hole. Fix the bristles firmly with the help of screw (D).

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

**B.2.4** Move down the brush holder slowly with screw (F) 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 during the test.

Note: The tufts shall not fail when subjected to a pull by thumb and finger grip or the force required for pulling out an individual tuft shall not be less than 50.0 N for 15 seconds

**NOTE** — any other appropriate instrument for determination of the pull strength available may also be used

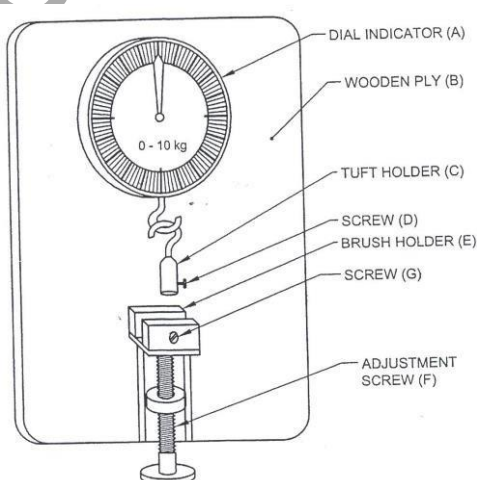


Fig. B1 Instrument for determination of pull strength

## **Annex C** **(normative)**

### **Determination of corrosion resistance**

#### **C.1 Procedure**

Submerge all metal components for 7 h in distilled water, then dry them as rapidly as possible at a temperature not exceeding 70 °C and examine the surfaces that are required to be corrosion resistant for freedom from corrosion.

#### **C.2 Results**

The surfaces shall show no sign of corrosion

Public review draft

## Annex D (normative)

### Sampling and criteria for conformity of the sweeping brooms

#### D.1 Scale of sampling

**D.1.1** lot — In any consignment, all the brushes of the same size and quality shall be divided into groups of 500 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.

**D.1.2** the conformity of the brushes in a lot to the requirements of this specification shall be ascertained for each lot separately. The number of brushes to be selected for this purpose shall be in accordance with Table 2.

**Table.D1 — Scale of sampling sweeping brooms**

S/N	Number of brooms in the lot (N)	Number of brooms to be selected (n)
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

**D.1.3** the brushes shall be selected at random. To ensure randomness of selection one of the following procedures, whichever is suitable, may be followed

- a) If all the brushes in a lot are packed in one box, then starting from any brush, count them in any suitable order as 1, 2....., up to r and so on, where r is the integral part of  $N/n$  ( N and n being the lot size and sample size, respectively), Every  $r^{\text{th}}$  brush thus counted shall be withdrawn to constitute the sample.
- 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 D1.

#### D.2 Criteria for conformity

**D.2.1** for declaring the conformity of the lot to the requirements of this specification, all the brushes selected according to D.1.2 and D.1.3 shall satisfy the relevant requirements given in clause 4

## Bibliography

- [1] IS 2622, Specification for brush, banister (hand sweeping),
- [2] TZS1095:2018, *Sweeping Brooms – Specification (Revision of TZS 1095:2010)*

Public review draft

## Certification marking

Products that conform to Uganda standards may be marked with Uganda National Bureau of Standards (UNBS) Certification Mark shown in the figure below.

The use of the UNBS Certification Mark is governed by the Standards Act, and the Regulations made thereunder. This mark can be used only by those licensed under the certification mark scheme operated by the Uganda National Bureau of Standards and in conjunction with the relevant Uganda Standard. The presence of this mark on a product or in relation to a product is an assurance that the goods comply with the requirements of that standard under a system of supervision, control and testing in accordance with the certification mark scheme of the Uganda National Bureau of Standards. UNBS marked products are continually checked by UNBS for conformity to that standard.

Further particulars of the terms and conditions of licensing may be obtained from the Director, Uganda National Bureau of Standards.



Public review draft

---

---

ICS nn.nnn.nn

Price based on nn pages