



EAST AFRICAN STANDARD

Cobweb duster — Specification

EAST AFRICAN COMMUNITY

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Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in the East African Community. It is envisaged that through harmonized standardization, trade barriers that are encountered when goods and services are exchanged within the Community will be removed.

The Community has established an East African Standards Committee (EASC) mandated to develop and issue East African Standards (EAS). The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the public and private sector organizations in the community.

East African Standards are developed through Technical Committees that are representative of key stakeholders including government, academia, consumer groups, private sector and other interested parties. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the Principles and procedures for development of East African Standards. XXXXXX.

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

The committee responsible for this document is Technical Committee EASC/TC 072, *Plastics and related products*

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Cobweb duster — specification

1 Scope

This Draft East African Standard specifies the requirements, methods of sampling and test for cobweb dusters used for removing cobwebs on ceilings and part of the walls that are not easily reached by human hands.

2 Normative references.

The following referenced documents referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 13061-1, *Physical and mechanical properties of wood — Test methods for small clear wood specimens — Part 1: Determination of moisture content for physical and mechanical tests.*

3 Terms and definitions

For the purposes of this document, the following terms and definitions 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>

3.1

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).

3.2

wood

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

3.3

lot

definite amount of same product, material or service collected together

3.4

tuft

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

3.5

block

part to which the filling material “bristles” are secured

3.6

bristle

stiff animal hair, feather, extruded plastic, metal or natural material e.g. sisal fibre, coconut fibre, on a cobweb duster head.

3.7

cobweb

tangles of the silken threads of a spider web usually covered with accumulated dirt and dust

3.8

pith

a tissue located in the center of the stem of vascular plants, which is composed of soft, spongy parenchyma cells

3.7

bristle length

length of the monofilament that protrudes from the block

3.8

handle length

part of handle that protrudes from the block

4 Requirements

4.1 General requirements

4.1.1 The cobweb duster shall have smooth finish and all components (block, bristles and handle) shall be free from imperfections and defects which may affect its appearance or serviceability

4.1.2 The cob web duster may be extendable and coloured

4.1.3 All metallic components of the duster shall be corrosion resistant

4.1.3 Block and handle

4.1.3.1 The material used for the block and handle shall be made of plastic, metal, wood or any suitable material.

4.1.3.2 For plastic cobweb duster, the handle and block shall be made of hard plastic which does not deflect while dusting. The handle shall fit firmly in the block hole and shall not come out during dusting

4.1.3.3 The block and handle for wooden cobweb duster, shall be free from brashness, any kind of biological or non-biological deterioration, insect attack, pith, knots (except pin knots), cracks and any other defect that may reduce the life of the duster and affect its serviceability

4.1.3.4 Metallic handles shall be insulated

4.1.4 Bristles

4.1.4.1 The bristles shall be made of animal hair, plastic natural material such as coconut fibre, sisal fibre or any other suitable materials

4.1.4.2 Suitable adhesive, wire, nails or staple shall be used to fix the bristles in the tuft holes.

4.1.4.3 Each tuft shall contain bristles of uniform length, diameter (for synthetic fibres), quantity and same Material”..

4.2 Specific requirements

4.2.1 The cob web duster shall conform to the requirements given in Table 1 when tested in accordance with the test methods specified therein.

Table 1 — Specific requirements for cob web duster

Characteristic	Requirement		Test method
	wooden	plastic	
Moisture content,%, max	15	-	ISO 13061-1
Tuft anchorage	Neither a tuft nor its individual bristle shall dislodge.		Annex A
Bristle diameter, mm, min	0.25		Annex C
Bristle length, mm, min	90.		
Handle length, mm, min	1000.0		
Number of bristles per head, mm, min	6300.0		
Pull out Force for 1min (N)	50.0		Annex A

4.2.2 All metallic components of the duster shall be corrosion resistant or shall be protected from corrosion, when tested in accordance with Annex B; the surfaces shall show no sign of corrosion

5 Packaging

The duster shall be packaged in suitable packages, the head may be detached from the handle.

6 Labelling

6.1 The cobweb duster shall be legibly and indelibly labelled in English and/or any other official language (French, Kiswahili etc.) of the importing East African country with the following information:

- Name of the manufacturer and/or trademark;
- Batch number; and
- Code of resin if plastic material is used.

6.2 The package shall be legibly and indelibly labelled in English and/or any other official language (French, Kiswahili etc.) of the importing East African country with the following information.

- Name of product "Cobweb duster";
- Country of origin;
- Batch number

6.3 The bulk package shall be legibly and indelibly labelled in English and/or any other official language (French, Kiswahili etc.) of the importing East African country with the following information:

- manufacturer's name, physical address and /or registered trade mark;
- name of the product as, "Cobweb duster";

- c) declaration of the number of cobweb dusters in the bulk package;
- d) batch or code number;
- e) extendable or non-extendable;
- f) instruction for storage and disposal of the bulk packaging material; and
- g) country of origin.

7 Sampling

Sampling shall be done in accordance with Annex D

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Annex A (normative)

Determination of Pull out Force

A.1 General

A simple instrument as shown in Fig. 1 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 cobweb duster head (E) is provided which is movable downward and upward with a screw (F). The dial force gauge/weighing scale shall be calibrated having traceability

A.2 Procedure

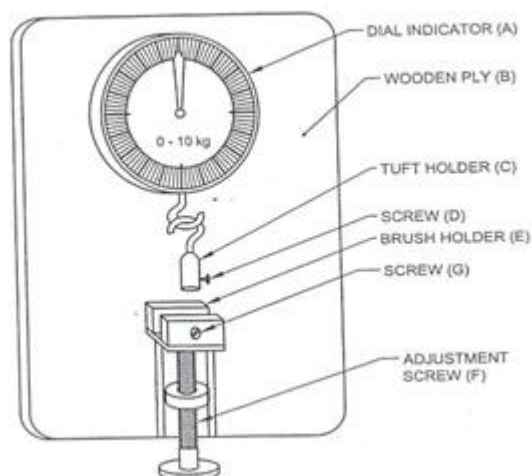
A.2.1 Fix the head with bristles in upward direction in the holder with the help of screw (G). Divide the bristles into segments of about 10 mm length.

A.2.2 Insert all bristles of one segment in the hole provided at the bottom of tubular tuft holder (C). Care should be taken not to allow bristles from adjacent segment to enter in to the hole. Fix the bristles firmly with the help of screw (D).

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

A.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 segment shall not come out of the cement 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 1 m



Annex B

(Normative)

Determination of Corrosion Resistance

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. Check for compliance with 4.2.2

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Annex C **(Normative)**

Dimensional Tests

C.1 Bristle diameter

The bristle diameter shall be measured by a micrometer screw gauge or a vernier calliper or any instrument that can measure to the nearest 0.01 mm, measure the diameter of six bristles to the nearest 0.01 mm. Select the six bristles from six random tufts from the same brush head, then calculate the average bristle diameter

C.2 Bristle length

The bristle length shall be measured using a vernier calliper, measure the length of six bristles to the nearest 0.01 mm. Select the six bristles from six random tufts from the same brush head. Calculate the average bristle length.

C.3 Handle length

The handle length shall be measured using a graduated ruler with a scale of 1 mm or any other suitable means, capable of measuring length to the nearest 1 mm.

Annex D (Normative)

Sampling of Cob web duster and Criteria for Conformity

D.1 Scale of Sampling

D.1.1 Lot – In any consignment, all the dusters of the same size and quantity shall be divided into groups of 500 dusters or less and each such group shall constitute a lot. Care shall be taken to ensure that cobweb dusters included in a lot do not differ in construction as far as possible

D.1.2 The conformity of the cobweb dusters in a lot to the requirements of this specification shall be ascertained for each lot separately. The number of cobweb duster to be selected for this purpose shall be in accordance with column. 1 and col. 2 of Table D1

Table D1 – Scale of Sampling

No. of dusters in a lot N	No. of dusters to be selected n
Up to 10	2
11 to 25	3
26 to 50	4
51 to 100	5
101 to 150	6
151 to 300	7
301 to 500	8

D.1.3 The cobweb dusters shall be selected at random. To ensure randomness of selection one of the following procedures is recommended for use:

- If all the cobweb dusters in a lot are packed in a one box, then starting from any duster, 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 th cob web duster thus counted shall be withdrawn to constitute the sample.
- If the cobweb dusters in a lot are packed in more than one box, approximately equal number of cobweb dusters shall be picked up at random from as many boxes as possible so as to obtain the required number of cob web dusters as specified in Table D1

D.2 Criteria for Conformity

For declaring the conformity of the lot to the requirements of this specification, all the cobweb dusters selected according to D.1.3 shall satisfy the relevant requirements given in clause 5

Bibliography

- [1] IS 11750:1986, Brushes — *Fitch flat with long handle*
- [2] IS 4301:1999, Brushes, — *brushes foundry flat*
- {3} US 2228:2021, *Cob web duster — Specification*

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