

DRAFT TANZANIA STANDARD

Surface polish — Specification

TANZANIA BUREAU OF STANDARDS

Draft Standard for Comments Only

Foreword

This Draft Tanzania Standard is being prepared by the Paints and varnishes Technical Committee under the supervision of Chemicals Divisional Standards Committee and it is in accordance with the procedures of the Bureau.

During the preparation of this standard reference was made to Uganda Standard US 1674:2017, *Surface polish — Specification*, published by Uganda National Bureau of Standards.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value observed or calculated expressing the result(s) of a test or analysis shall be rounded off in accordance with TZS 4. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

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DRAFT TANZANIA STANDARD**CDC 13(940) DTZS****Surface polish — Specification****1. Scope**

This Draft Tanzania Standard specifies requirements, sampling and test methods for wax-based polishes in form of paste and liquid applicable to polishes intended for use on plastics, leather, rubber, finished furniture and car interiors like dashboards and leather seats.

2. Normative references

The following referenced documents are indispensable for the application 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 4618, *Paints and varnishes — Terms and definitions*

TZS 59/ISO 3696 *Water for analytical laboratory use – Specification and test method*

TZS 526, *Paints and varnishes – Determination of volatile and non-volatile matter*

TZS 1887/ISO 1516 *Determination of flash/no flash — Closed cup equilibrium method*

ISO 4625-1, *Binders for paints and varnishes — Determination of softening point — Part 1: Ring-and-ball method*

TZS 524, *Paints and varnishes – sampling*

3. Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4618 and the following 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**ambient temperature**

temperature between 21 °C and 38 °C

3.2**flash Point**

lowest temperature of the test portion, corrected to a barometric pressure of 1 013 kPa, at which application of a test flame causes the vapour of the test portion to ignite and the flame to propagate across the surface of the liquid, under the specified conditions of test

3.3**lot**

unit of production that, as far as practicable, consists of production units of a single type, class, size and composition, manufactured under the same conditions and at substantially the same time

4. Requirements

4.1 General requirements

4.1.1 Description

4.1.1.1 Paste

The polish shall consist essentially of natural or synthetic waxes and solvents in suitable proportions.

4.1.1.2 Liquid

The polish shall consist of natural or synthetic waxes or a mixture of both, volatile aliphatic solvent, polishing oils, either emulsified in water or wax-solvent mixture to form a stable, free flowing liquid that can be readily dispersed upon shaking.

4.1.2 Consistency

4.1.2.1 Paste

The polish shall

- be of smooth, homogenous, semi-solid mass and free from gritty material.
- not flow at ambient temperature and shall not show appreciable shrinkage at the edges.
- have no tendency for separation of solvents or crystallization of ingredients when tested in accordance with Annex A.

4.1.2.2 Liquid

The material shall be easily pourable, free flowing and homogenous, free from any grit and sedimentation. It shall have no tendency of separation or crystallization of the constituent material when tested in accordance with Annex A.

4.1.3 Odour

The polish shall not have any objectionable odour

4.1.4 Colour

The polish shall not impart any colour of its own to the polished surface.

4.1.5 Applicability and polishing properties

4.1.5.1 The polish shall

- not crumble or dry rapidly.
- give gloss which shall be free from greasiness or tackiness.
- remove ingrained dirt and grease from the surface.
- neither be slippery nor show any resistance to easy application.

4.1.6 Toxicity

The polish shall have no adverse effects on human health and environment when used for its intended purpose.

4.2 Specific requirements

The polish shall comply with specific requirements given in Table 1 when tested in accordance with the test methods therein.

Table 1 — Specific requirements for Surface polish

S No.	Parameter	Requirement		Test method
		Paste	Liquid	
(i)	Non-volatile matter content, % (m/m)	20 - 35	7 - 17	TZS 526
(ii)	Consistency	To pass test		Annex A
(iii)	pH of water extract	6.5 – 9.5		Annex B
(iv)	Ash <u>contents</u> of non-volatile matter, % (m/m), max	1.5		Annex C
(v)	Flash point of organic solvent, °C min.	30		TZS 1887/ISO 1516
(vi)	Drying time, at ambient temperature, min, max	10		Visual
(vii)	Softening point of non-volatile matter, °C min.	60	N/A	ISO 4625-1

5. Packaging and labelling

5.1 Packaging

The container (including the closure) in which the polish is packaged shall not interact chemically or physically with the polish and shall be strong enough to protect the polish adequately during normal handling, transportation and storage.

5.2 Labelling

The container shall be labelled either in English, Kiswahili or both as agreed between the manufacturer and the supplier with the following information:

- a) name of the product;
- b) type of the polish;
- a) manufacturer's name and physical address;
- b) registered trade mark if any;
- c) batch/code number;
- c) net content;
- d) safety precaution
- d) instructions for use;
- e) country of origin; and
- f) dates of manufacture and expiry.

6. Sampling

Sampling shall be done in accordance with TZS 524

7. Quality of reagents

Analytical grade reagents and water for analytical use as specified by TZS 59/ISO 3696 shall be used for the appropriate tests.

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Annex A (normative)

Determination of consistency

A.1 Paste

A.1.1 Maintain an original unopened container of polish at $10\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ for two hours. Open the lid and examine as given in A.1.1.1 and A.1.1.2.

A.1.1.1 No liquid shall separate from the semisolid mass.

A.1.1.2 The polish shall be soft and smooth to touch and capable of being taken up readily with a brush or cloth without crumbling.

A.1.2 Repeat the above series of examinations on another container maintained at a temperature of $45^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for two hours. The polish shall pass the test in accordance with A.1.2.1 and A.1.2.2.

A.1.2.1 The material shall not flow or run if the container is tilted.

A.1.2.2 The separation of a few drops of the solvent shall not be considered a failure to meet this test, if they are re-absorbed when the paste is brought to ordinary temperature.

A.2 liquid

A.2.1 Maintain an original unopened container of polish at $10\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$ for two hours. Open the lid and examine as given in A.2.1.1 and A.2.1.2

A.2.1.1 No liquid shall separate from the homogenous liquid mass.

A.2.1.2 The polish shall easily be pourable and applicable.

A.2.2 Repeat the above series of examinations on another container maintained at a temperature of $45^{\circ}\text{C} \pm 1^{\circ}\text{C}$ for two hours.

No solid shall separate from the homogeneous liquid.

Annex B (normative)

Determination of pH

B.1 Paste

Procedure

Add about 15 g of the material to 100 ml of water in a beaker. Heat with stirring till all the wax has melted. Allow to cool to a temperature of $27\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$. Separate the aqueous layer from the wax cake and determine its pH using a pH meter ~~with a glass electrode.~~

B.2 liquid

Determine the pH on the undiluted sample by a suitable pH meter ~~using glass electrode.~~

Annex C

(normative)

Ash content

These methods determine the ash contents in waxes, polishes and other related materials.

C.1 Procedures

C.1.1 Method A

Melt a portion of non-volatile matter and stir thoroughly. Accurately weigh a mass of a 3 g sample (to the nearest mg) in a tarred crucible. Burn off the combustible matter slowly and ignite the residue to constant mass at a 700 °C.

$$\text{Ash content, percent} = \frac{\text{mass of residue}}{\text{mass of sample}} \times 100$$

C.1.2 Method B

Weigh a mass of sample (to the nearest mg) containing about 2 g of non-volatile matter in a tarred porcelain crucible. Evaporate the volatile matter and burn the combustible matter slowly by igniting to constant mass.