DUS 1674

DRAFT UGANDA STANDARD

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Surface polish — specification

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Foreword

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The committee responsible for this document is Technical Committee UNBS/TC 5, *Chemical and Environment.*

Surface polish — Specification

1 Scope

This draft Uganda standard specifies requirements, methods of sampling and test 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.

This standard does not apply to polishes for floor, glass, fibre and fabric surfaces.

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.

DUS 1690**,** *Standard Test Method for Determination of the Ash Content of adhesives*

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

DUS ISO 3679, *Determination of flash no flash and flash point – Rapid equilibrium closed-cup method*

US 576*, Polishes and related materials — Glossary of terms*

US ISO 3251 *Paints, varnishes and plastics — Determination of non-volatile matter content*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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.

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

4 Requirements

4.1 Description

4.1.1 Paste

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

4.1.2 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.

4.2 Consistency

4.2.1 Paste

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

4.2.2 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.

4.3 Odour

The polish shall not have any objectionable odour. Also it shall not leave any bad odour after application.

4.4 Colour

The product shall not impart any colour of its own to the polished finish.

4.5 Applicability and polishing property

4.5.1 The polish shall not crumble or dry rapidly. It shall give gloss which shall be free from greasiness or tackiness.

4.5.2 The polish shall remove ingrained dirt and grease from the surface.

4.5.3 The polished surface shall neither be slippery nor show any resistance to easy application.

4.5.4 The polished surface shall not take more than 10 minutes to dry.

4.6 Stability in storage

The product shall not deteriorate in any manner and shall comply with the requirements of this specification when stored in its original sealed container for a period of one year from the date of manufacture.

4.7 Toxicity

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

4.8 Specific quality requirements

The polish shall also comply with the requirements given in Table 1

Table 1— Requirements for polish

Characteristic	Requirement		Test method
	paste	Liquid	
Non-volatile matter, percent by mass	20 - 35	7 - 17	US ISO 3251
Ash of non-volatile matter percent by mass, Max.	1.5	1.5	DUS 1690
pH of water extract	6.5 - 9.5	6.5 - 9.5	Annex B
Flash point of organic solvent, °C min.	30	30	DUS ISO 3679
Softening point of non volatile matter , °C min.	60	N/A	DUS 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 Labeling

Each container and each bulk package shall bear in prominent, legible, and indelible marking the information required in terms of the Weights and Measures Act, and the following additional information:

a) manufacturer's name and physical address;

b) name of the product;

c) net mass of the material when packed;

d) type of the polish;

e) instructions for use;

f) country of origin; and

g) month and year of manufacture and expiry.

6 Sampling

For the purpose of ascertaining the conformity of the polishes to this specification, representative samples shall be drawn as prescribed in Annex C

Annex A
(normative)

Determination of consistency

A.1 Paste

A.1.1 Maintain an original unopened container of polish at 10 °C ± 2 °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°C ± 2°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 °C ± 1 °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°C ± 1°C for two hours.

No solid shall separate from 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 °C ± 2 °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)

Sampling

C.1 General

In drawing, preparing, storing and handling test samples, the following precautions and directions shall be observed.

C.1.1 Samples shall be taken in a protected place not exposed to damp air, dust or soot.

C.1.2 The sampling instrument shall be clean and dry when used.

C.1.3 Precautions shall be taken to protect the samples, the material being sampled, the sampling instrument and the containers for samples from adventitious contamination.

C.1.4 The samples shall be placed in clean, dry and air-tight glass or other suitable containers, on which the material has no action.

C.1.5 The sample containers shall be of such a size that they are almost completely filled by the sample.

C.1.6 Each sample container shall be sealed air-tight after filling and marked with full details of sampling, the date of sampling and the month and year of manufacture of the material.

C.1.7 Samples shall be stored in such a manner that the temperature of the material does not vary unduly from the normal temperature.

C.2 Scale of sampling

C.2.1 Samples, to determine the conformity of a consignment of polish to this specification, shall be selected so as to be representative of the consignment and for this purpose the consignment should be made up of homogeneous lots.

C.2.2 Lot — all the containers in a single consignment of the material drawn from the same batch of manufacture and belonging to the same size shall constitute a lot. If a consignment is declared or known to consist of different batches of manufacture or of different sizes of containers, the containers belonging to the same batch and size shall be grouped together and each such group shall constitute a separate lot.

C.2.3 Samples shall be tested for each lot for ascertaining the conformity of the material to the requirements of this specification.

C.2.4 The number (n) of containers to be chosen from the lot shall depend upon the size of the lot and shall be in accordance with Table C.2.

Table C.2 — Numbers of containers to be selected for sampling

Lot size (N)	Number of containers to be chosen (n)
Up to 500	10
501 to 1000	15
1000 and above	20

C.2.5 These containers shall be chosen at random from the lot; in order to ensure the randomness of selection.

C.3 Preparation of composite test samples

C.3.1 liquid

Shake well each of the containers selected as in C.2.5. Pour out a quantity of polish such that the total quantity obtained from all the containers provides material sufficient for all the tests (about 500 g).Thoroughly mix the material drawn from all the selected containers so as to form the composite sample.

C.3.2 paste

C.3.2.1 Draw with a cork borer of approximately 2 cm diameter whole vertical sections of the material from different points on a surface from the containers selected according to C.2.5. The total quantity of material drawn from each container shall be the same and shall not exceed 80 g.

C.3.2.2 Thoroughly mix all the portions of the material drawn from different containers by means of a mechanical stirrer taking care not to keep the temperature of the mixture below 45 °C, so as to form a composite sample weighing not less than 700 g.

C.4 Number of tests and criterion for conformity

C.4.1 Test for consistency shall be done on the original containers from which no sample has been drawn.

C.4.2 Tests for all characteristics shall be done on the composite sample.

C.4.3 The sample shall be declared as conforming to this specification if the test results satisfy the corresponding requirement.

Bibliography

[1] IS 1746, *Shoe polish, paste — specification*

[2] IS 5480, *Specification for Automobile polish, — Paste*

[3] IS 7982*, Automobile polish, liquid — Specification*.

[4] IS 8171, *Glossary of terms relating to polishes and related materials*

[5] IS 12010, *Shoe polish, liquid — Specification*

[6] US 575 *Polish, paste for floor and wooden furniture — Specification*

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