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Polishes — Specification —

Part 3:

Shoe liquid type

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In order to match with technological development and to keep continuous progress in industries, standards are subject to periodic review. Users shall ascertain that they are in possession of the latest edition

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Foreword

Rwanda Standards are prepared by Technical Committees and approved by Rwanda Standards Board (RSB) Board of Directors in accordance with the procedures of RSB, in compliance with Annex 3 of the WTO/TBT agreement on the preparation, adoption and application of standards.

The main task of technical committees is to prepare national standards. Final Draft Rwanda Standards adopted by Technical committees are ratified by members of RSB Board of Directors for publication and gazettment as Rwanda Standards.

DRS 90-3 was prepared by Technical Committee RSB/TC 024, *Organic and inorganic chemicals*.

In the preparation of this standard, reference was made to the following standard:

IS 12010: Specification for shoe polish, liquid

The assistance derived from the above source is hereby acknowledged with thanks.

This second edition cancels and replaces the first edition

DRS 90 consists of the following parts, under the general title *Polishes — Specification*

— *Part 1: Polishes — Specification — Shoe wax solvent paste type (withdrawn and replaced by RS EAS 462)*

— *Part 2: Polishes — Specification — Shoe cream type*

— *Part 3: Polishes — Specification — Shoe liquid type*

Committee membership

The following organizations were represented on the Technical Committee on *Organic and inorganic chemicals* (RSB/TC 024) in the preparation of this standard.

Paragraph of participants

University of Rwanda – College of Sciences and Technology (UR- CST)

Rwanda Inspectorate, Competition and Consumer Protection Authority (RICA)

Standards for Sustainability (SFS)

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Polishes — Specification — Part 3: Shoe liquid type

1 Scope

This Draft Rwanda Standard describes the requirements, sampling and test methods for liquid shoe polish suitable for general application to pure or coated leather footwear.

2 Normative references

The following documents are 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.

RS EAS 462: 2007, *Shoe polish wax solvent paste type — Specification*

RS ISO 80000-1: 2009, *Quantities and units —Part 1: General*

3 Terms and definitions

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

3.1

heat resistance

property of paste polish to resist warm ambience (at specified temperature) without changing its paste consistency

3.2

levelling

property of a freshly spread aqueous polish to dry to a uniform and streak-free appearance

3.3

drying time

time taken by a polish to dry out sufficiently before buffing for shine

3.4

polish

composition generally applied at frequent intervals to produce desired, smooth, flossy surface on rubbing. The

common polishes are metal polish shoe polish and cream floor polish ear polish, aircraft polish, glass polish tile polish and industrial buffing compounds

3.5

polish, dressing

prepared by wax; by suspension or dissolution of suitable ingredients in suitable vehicles many of these can be sprayed on to the shoe uppers and often final polishing can be dispensed with

3.6

polish, dry bright

polishes which are also known by other names, such as no rub, rubless, salt-polishing, self-shine polishes on application with a brush or a pad, the coatings dry out to a smooth glossy surface without the usual rubbing or brushing

3.7

silicon

semi-organic materials which are employed in the manufacture of some special polishes

3.8

buffing

smoothing of a surface by means of flexible wheels to the surface of which fine abrasive particles are applied in liquid suspension paste or grease stick form This also applies to the rubbing off of surface after non abrasive paste or liquid polishes have been applied with a soft cloth

3.9

cleaner

product, either liquid or paste, used for cleaning floor, shoes, automobiles, hard surfaces and porcelain articles in shoe care products, cleaner also stands as renovation

3.10

creaming

separation of a layer of the dispersed phase on an emulsion polish to the surface of the liquid continuous phase

3.11

drag

resistance on buffing alter application of polish

3.12**gloss**

degree to which a polished surface possesses the properties of reflecting light in a mirror-like manner (specular reflection)

3.13**lustre**

brightness or shine of a surface

3.14**pigment**

insoluble dispersed particles in a polish composition which give the dried film its characteristic properties of colour gloss and opacity

3.15**shelf life**

time for which a polish will keep in good condition when stored in original sealed containers under normal storage conditions on the shelves of a shop or stock room

3.16**shine**

brightness or radiance of a surface after being polished

3.17**caking**

setting of pigment particles of a polish into a hard compact mass which is not easily redispersed by stirring. The drying of a paste type polish into a hard unspreadable mass due to the evaporation of the solvent

3.18**chilling**

subjection of wax polishes to low temperatures in order to quickly transform them from molten state to semisolid state (paste) so as to impart certain desired characteristics

4 Requirements

4.1 General requirements

4.1.1 The material shall not have a disagreeable odour.

4.1.2 The material shall be manufactured in conventional colours like black, tan (light brown), dark tan (dark brown) or neutral nearly matching the colour of leather footwear or in any other colour as agreed upon between the purchaser and manufacturer.

4.1.3 The material shall be easily pourable, free flowing, homogeneous liquid, free from any grits and sedimentation. It shall have no tendency for the separation or crystallization of the constituent materials when tested as described in annex A.

4.1.4 The polish shall spread evenly on the surface without any mottling. The applied film shall not show any tendency to spreading while stilling being wet when tested as prescribed in Annex B.

4.2 Specific requirements

The product shall also comply with the requirements given in table when tested in accordance with the methods indicated therein.

Table 1— Requirements for liquid shoe polish

S/N	Characteristics	Requirement	Test method
i)	Non-volatile matter, percent by mass, min	20	Annex C
ii)	Ash of non- volatile matter, percent by mass, max	3	Annex D
ii)	pH of the polish	6.5-9	Annex E

4.2.1 Shoe polish furnished under this specification shall conform to the requirements thereof for one year from the date of actual delivery when stored in its original sealed container, under cover at $27^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and $63\% \pm 2\%$ relative humidity.

5 Packaging and labelling

5.1 Packaging

5.1.1 The polish shall be supplied in sound, clean and suitable containers, fitted with in built applicators for easy application. The container shall be fitted with a cap which may be closed or opened without much difficulty and which shall prevent evaporation and the ingress of dirt.

5.1.2 The size of containers shall be 75 mL or as agreed to between the purchaser and manufacturer.

5.1.3 The containers shall be packed in cartons and the cartons, in turn, in cardboard or wooden boxes or as agreed to between the purchaser and the manufacturer. Each carton shall be marked with batch number.

5.2 Labelling

The following information shall be clearly indicated on of the container:

- a) manufacturer's name address and /or recognized trade mark, if any;
- b) net volume;
- c) the words 'liquid shoe polish'; and
- d) colour of the polish.
- e) Country of origin
- f) manufacture and expiry date

6 Sampling

The methods of drawing representative samples of the material and the criteria for conformity shall be as described in Annex F.

Annex A
(normative)

Determination of consistency

A.1 Procedure

A.1.1 Maintain an original unopened container of polish at $10\text{ °C} \pm 1\text{ °C}$ for two hours. Open the cap and examine as given in A.1.1 and A.1.2.

A.1.2 No solid shall separate from the homogeneous liquid mass.

A.1.3 The polish shall be easily pourable and applicable.

A.1.4 Repeat the above series of examinations on another container maintained at a temperature of $45\text{ °C} \pm 1\text{ °C}$ for two hours.

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Annex B (normative)

Determination of application

B.1 Procedure

B.1.1 Leather shoe upper piece of size 150 mm · 150 mm of nearly the same colour as the polish shall be used for testing. The leather piece shall be smooth and matt finished (non glossy) on the grain side.

B.1.1.1 Clean the grain surface with cloth or brush to remove any adherence dust particles. Apply the polish in a thin firm to the smooth grain surface by means of the in built applicator and examine after two minutes for the characteristics described in B.1.2.1 and B.1.2.2.

B.1.1.2 Examine the polished leather piece for gloss visually Examine the polished leather piece for gloss visually. In case an approved sample of the polish is available, polish a similar piece of leather and match the gloss obtained with the test sample with that of the approved sample.

B.1.1.3 Place the leather piece (see B.1.2) which has been allowed to dry for 5 min on the pan of suitable physical balance and counterpoise it with weights. Place additional weight of 2.5 kg and press the polish surface with thumb till the two pans of the balance are counterpoised. Keep the thumb in this position for one minute and then slowly release.

B.1.2 There shall be no sign of sticking to the thumb. The thumb impression produced shall be such that it shall be wiped out with a cloth or brush.

Annex C (normative)

Determination of non-volatile matter

C.1 Procedure

C.1.1 Weigh accurately about 3 g of the sample in a tarred flat bottomed dish of approximately 8 cm diameter, provide with cover. Heat without the cover in a steam bath till the bulk of volatile matter is volatilized off, and then in an air oven at $115\text{ }^{\circ}\text{C} \pm 10\text{ }^{\circ}\text{C}$ for approximately 4 h, cool and weigh. Repeat heating and cooling till the last two weighings differ by not more than one milligram.

C.1.2 Calculation

$$\text{Non volatile matter, percent by mass} = \frac{(B \times 100)}{A}$$

Where

B = mass in g of the non volatile residue, and

A = mass in g of the sample taken for test.

Annex D (normative)

Determination of ash of non volatile matter

D.1 Procedure

D.1.1 Heat about 20 g of material in an open dish in steam bath for 4 h and then in an air oven at 110 °C to 120 °C for 16 h. Cool and weigh accurately about 2 g of the non volatile matter as obtained above a tarred porcelain crucible. Ignite to constant weight, taking care that the cooling before each weighing is done in desiccators.

D.1.2 Calculation

$$\text{Ash of non-volatile matter, percent by mass} = \frac{(B \times 100)}{A}$$

Where

B = mass in g of the ash, and

A = mass in g of the non-volatile residue.

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Annex E
(normative)

Determination of pH of the polish

E.1 Procedure

The pH of the polish is determined using pH meter with glass electrode at $27\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$.

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Annex F (normative)

Sampling of liquid shoe polish

F.1 General requirement of sampling

In drawing, preparation, storing and handling test samples, the following precautions and direction shall be observed:

- a) sample shall be taken in a protected place not exposed to damp air, dust or soot;
- b) sampling instrument shall be clean and dry when used;
- c) precautions shall be taken to protect the samples, the material being sampled, the sampling instrument and the containers for samples from adventitious contamination;
- d) to draw a representative sample, vertical sections of the polish at a uniformity placed points shall be taken and mixed as thoroughly as possible by suitable means;
- e) the samples shall be placed in clean, dry and air tight glass or other suitable container on which the material has no action.
- f) the sample containers shall be of such size that they are almost completely filled by the sample;
- g) each sample container shall be sealed air tight after filling and marked with full details of sampling, the date of sampling, the month and year of the manufacture of material; and
- h) samples shall be stored in such a manner that the temperature of the material does not vary unduly from the normal temperature.

F.2 Scale of sampling

F.2.1 To determine conformity of consignment of shoe polish, liquid to this specification, samples shall be selected so as to be representative of the whole consignment. In the absence of any prior agreement between the purchaser and manufacturer on the mode of sampling and determining the criteria of conformity, following sampling scheme is recommended to serve as a guide.

F.2.2 All a containers in a single consignment of the material drawn from the same batch of manufacture and 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.

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

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

Table 2— Numbers of containers to be selected

Lot size (L)	Number of containers to be selected
$L \leq 500$	10
$500 < L \leq 1000$	15
$L > 1000$	20

F.2.5 These containers shall be chosen at random from the lot. In order to ensure the randomness of selection, some random number table as agreed upon between the purchaser and the manufacturer shall be used.

F.3 Preparation of composite sample

Shake well each container selected in F.2.5 and test for consistency. Pour out a quantity of a polish such that the total quantity obtained from all the containers provides material sufficient for all the test (about 500 mL). Thoroughly mix the material drawn from all the sealed container so as to form the composite sample.

F.4 Number of tests and criteria for conformity

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

F.4.2 Test for other characteristics shall be done on the composite sample.

F.4.3 The lot shall be declared as conforming to the requirements of sampling if the test results satisfy the corresponding requirements in F.1.

Bibliography

- [1] ISO/IEC Directives, Part 2, *Rules for the structure and drafting of International Standards*, 2016

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