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Polishes — Specification —

Part 2:

Shoe cream 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.

WD 90-2 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 6350: 1985 (Reaffirmed 2003): Specification for shoe cream

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

This second. edition cancels and replaces the first edition (RS 90-2: 2015), of which [has / have] been technically revised.

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

- *Part 1:— Shoe wax solvent paste type (withdrawn and replaced by RS EAS 462)*
- *Part 2— Shoe cream type*
- *Part 3:— 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)

Horizon SOPYRWA Ltd

Rwanda Standards Board (RSB) – Secretariat

Polishes — Specification — Part 2: Shoe cream type

1 Scope

This Draft Rwanda Standard describes the requirements, sampling and methods of test for wax- emulsion type shoe cream suitable for general application to 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, *Shoe polish wax solvent paste type — Specification.*

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 after 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

subjecting 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 shoe cream shall consist of waxes, organic solvent, water, soap or neutral emulsifier with or without colouring matter. It shall not have any deleterious effect on leather.

4.1.2 The cream shall not have any disagreeable odour.

4.1.3 The shoe cream shall be manufactured in neutral or any other colour nearly matching the colour of the leather footwear as agreed upon between the purchaser and the manufacturer.

4.1.4 The shoe cream shall pass the test for resistance to heat and cold when tested as in accordance with Annex A.

4.2 Specific requirements

4.2.1 When applied by means of a brush or clean cloth to a smooth upper leather surface, the cream shall spread easily and evenly and shall give with minimum of buffing a reasonably glossy surface free from any greasiness. In case an approved sample is available, polish a similar piece of leather and match the gloss obtained on the test sample with that of the approved sample.

4.2.2 The film of shoe cream after spreading with the brush or the cloth shall comply with the test described in Annex A.

4.2.3 The shoe cream shall remove the ingrained dirt from the polish surface.

4.2.4 The shoe cream shall also comply with the requirements given in Table 1.

Title of the table ??? Table 1- Specific requirements of shoe cream

S/N	Characteristics	Requirement	Test method
i)	Ash, percent by mass	1.5	Annex B
ii)	pH of water extract	6.5 - 9	Annex C
iii)	Flash point of the organic solvent, °C, min	30	Annex D

4.2.5 The shoe cream shall be a smooth and homogeneous cream like pasty mass. When packaged in collapsible tubes, the cream shall come out of open tube when gently pressed, without breaking. It shall also be free from gritty material.

4.2.6 The shoe cream shall retain the properties described in 4.2.1 to 4.2.4 for one year from the date of manufacture when stored in its original sealed containers under cover at room temperature (21 °C to 38 °C).

4.2.7 Unless specified otherwise, pure chemicals and distilled water shall be used in tests.

Note Pure chemicals mean chemicals that do not contain impurities which affect the results of analysis.

4.2.8 When tested in accordance with Annex A, shoe cream shall not:

- a) emit disagreeable odour from the containers when opened;
- b) ooze out through the caps of collapsible tubes;
- c) separate liquid from the cream and it; and
- d) flow when the container is tilted. Separation of a few drops shall not be considered a failure if these are reabsorbed into the cream on cooling.

5 Packaging and labelling

5.1 Packaging

5.1.1 The shoe cream shall be supplied in wide mouthed container or collapsible tubes, both having caps which can be easily closed or opened and which prevent evaporation of solvent and ingress of dirt.

5.1.2 The net mass of the material in each container shall preferably be 25 g, 50 g, or 100 g or as agreed to between the purchaser and the manufacturer.

5.1.3 The container shall be packaged in cartons and the cartons in cardboard or wooden boxes as agreed upon between the purchaser and the manufacturer. Each carton shall be labelled with batch number, month and year of manufacture.

5.2 Labelling

The following information shall be legibly and indelibly marked on the container:

- e) manufacturer's name or its recognized trade mark, if any;
- f) net mass of the material when packaged;
- g) the name of the material; and
- h) the colour of the shoe cream.

6 Sampling

Sampling of shoe cream products shall be done in accordance with Annex E.

Annex A (normative)

Test methods for heat and cold

A.1 General

The test shall be carried out on the shoe cream in its original containers (glass bottles or collapsible tubes). One sample is maintained at $10^{\circ}\text{C} \pm 1^{\circ}\text{C}$ and another sample at $45^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 2 h.

A.2 Procedure

Take small amount of cream between fingers and rub. The presence of lumps or granules shall not be felt. Take two clean, dry microscopic slips. Apply a uniform thin coat of the cream on the surface of one. Immediately place the other slip on it so that the wet polish is sandwiched. Pressing the two slips gently with fingers, cause them to move relative to each other a few rounds. Separate the slip by sliding off. There shall not be any streaks in the polish coat on either.

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Annex B (normative)

Determination of ash

B.1 Procedure

Weight accurately about 10 g of the shoe cream sample in a tarred porcelain dish. Heat on a steam bath till the bulk of the solvent is volatilized off and then in an air oven at 110 g to 120 g for about an hour. Finally ignite the residue in a muffle furnace and weigh after cooling. Repeat ignition and cooling until constant mass is obtained.

B.2 Calculation

$$\text{Ash, percent by mass} = \frac{M_1 \times 100}{M}$$

Where

M₁ is mass in grams, and

M is mass in grams of the test sample

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Annex C (normative)

Determination of pH water extract

C.1 Procedure

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

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Annex D (normative)

Determination of the flash point of the organic solvent

D.1 Procedure

Take about 200 g of the shoe cream and distil it under reduced pressure so that all the volatile fractions are distilled over. Separate the organic solvent from water by a separate funnel. Shake the solvent with fused calcium chloride or with anhydrous magnesium sulphate and filter.

D.2 Test for drying

D.2.1 Procedure

D.2.1.1 Use leather upper piece of size 150 mm x 150 mm of the same colour as the cream. The piece shall be smooth and matt finished (non glossy) on the grain side.

D.2.1.2 Clean the grain surface with a cloth or brush to remove any adhering dust particles. Apply the cream in a thin aim to the smooth grain surface using a rag or brush and allow to dry for $2\frac{1}{2}$ min.

D.2.1.3 Place the piece in one pan of a suitable physical balance and counterpoise it with weights. Place an additional weight of 2.5 kg and press the polish surface with the thumb till the two pans of the balance are counterpoised. Keep the thumb in this position for one minute and then slowly release. The thumb impression if produced shall be as can be wiped out with a cloth or brush.

Annex E (normative)

Sampling of shoe cream

E.1 General

E.1.1 In drawing, preparation, storing and handling test samples, the following precautions and directions shall be observed.

E.1.2 Samples shall be taken in a protected place that is not exposed to damp air, dust or soot.

E.1.3 The sampling instrument shall be clean and dry when used.

E.1.4 Precautions shall be taken to protect the samples, the material being sampled, the sampling instrument and the containers for samples from adventitious contamination.

E.1.5 To draw a representative sample, vertical sections of the shoe cream at uniformly placed points shall be taken and mixed as thoroughly as possible by suitable means.

E.1.6 The sample shall be placed in clean, dry and air tight glass or other suitable containers, on which the material has no action.

E.1.7 The sample containers shall be of such a size that they are almost completely filled by the samples.

E.1.8 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.

E.1.9 Sample shall be stored in such a manner that the temperature of the material does not vary unduly from the normal temperature.

E.2 Scale of sampling

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

E.2.2 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.

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

E.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 column 1 and 2 of Table E.1.

Table E.1— Nmber of containers to be selected for sampling

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

E.2.5 In addition to the number of containers chosen in E.2.2, addition number of containers shall be selected from each lot so as to obtain 400 g of the material for determination of flash point of the organic solvent of the material.

E.2.6 Containers shall be chosen at random from the lot; in order to ensure the randomness of selection, same random number table as agreed to between purchaser and supplier shall be used.

E.3 Preparation of composite test samples

E.3.1 For material supplied in bottles, withdraw sticks of material by means of borer such as cork borer from several different points across the surface of the bottles selected according to E.2.4. For material supplied in collapsible tubes, press out sticks of material. The total quantity drawn from each bottle or tube shall be approximately 10 g.

E.3.2 Thoroughly mix, if necessary by heating below 45 °C, with a chemical stirrer all the portion of the material drawn from different containers so as to form a composite test sample weighing not less than 100 g.

E.4 Number of test and criterion for conformity

E.4.1 Flash point of the organic point shall be determined by using the sample drawn from containers selected according to E.2.4.

E.4.2 Tests for the determination requirements specified in 4.2.1 - 4.2.3 shall be tested by use of composite sample as specified in E.3

E.4.3 The lot shall be declared as conforming to the requirement of this specification if the test results as obtained under E.4.1 and E.4.2 comply with corresponding requirements.

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Bibliography

- [1] KS03-820, *Kenya Standard Test Method for waxes & Polishes*

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