SRI LANKA STANDARD 126 : 1986

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SPECIFICATION FOR
SHOE POLISH, PASTE
(FIRST REVISION)

SRI LANKA STANDARDS INSTITUTION

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SLS 126:1986
(Attached AMD 212)

Gr. 6

SRI LANKA STANDARDS INSTITUTION
53, Dharmapala Mawatha,
Colombo 3,
Sri Lanka.

SRI LANKA STANDARD

SPECIFICATION FOR SHOE POLISH, PASTE

(FIRST REVISION)

FOREWORD

This Sri Lanka Standard was authorized for adoption and publication by the Council of the Sri Lanka Standards Institution on 1986-07-18, after the draft, finalized by the Drafting Committee on Shoe Polish, had been approved by the Chemicals Divisional Committee.

This specification was first published in 1972. In this revision the requirement for iron content has been deleted since iron oxide compounds are no longer used in the manufacture of shoe polish. Change has been made in the requirement for pH of water extract. A new test method has been introduced for the determination of flash point. The method of test for the determination of ash of non-volatile matter and the method of sampling have been modified.

All standard values given in this specification are in SI units.

For the purpose of deciding whether a particular requirement of this specification is complied with, the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with CS 102. The number of significant places retained in the rounded off value shall be the same as that of the specified value in this specification.

In the preparation of this specification valuable assistance derived from related publications of the Indian Standards Institution and the South African Bureau of Standards is gratefully acknowledged.

1 SCOPE

This specification prescribes the requirements and methods of sampling and test for wax shoe polish, paste suitable for general application to leather footwear.

2 REFERENCES

ISO 2719 Pensky-Martens closed cup method

ISO 3405 Petroleum products - Determination of distillation characteristics

CS 102 Presentation of numerical values

SLS 428 Random sampling methods

SLS 535 Methods of test for paints.

3 REQUIREMENTS

3.1 General requirement

The polish shall be a uniform blend of wax, suitable solvents and other suitable materials. It shall be in the form of a semi-solid paste, having an agreeable odour. It shall also be substantially free from lumps, granules, grit and extraneous matter.

3.2 Colour

The polish shall be neutral in colour or shall have a conventional colour like black, light tan (light brown), mid tan (mid brown), dark tan (dark brown) or red, nearly matching the colour of the leather footwear or of any colour as agreed to between the purchaser and the supplier.

3.3 Shelf-life

The polish when stored in unopened containers, under normal conditions shall not show cracks, hardening, shrinkage or separation of solvents within a period of six months from the date of manufacture.

3.4 Consistency

The polish shall be non-flowing over the temperature range 10 °C to 40 °C and shall show no separation of the constituents when tested as prescribed in Appendix A.

3.5 Performance and drying time

The polish shall be capable of being readily applied to a smooth leather surface and shall dry, without crumbling, to a film within 2 minutes. The film shall produce a non-tacky glossy surface when tested as prescribed in Appendix B.

3.6 Water soluble stain

The aqueous layer obtained in Appendix C shall not be strongly coloured.

NOTE - This requirement does not apply to non-pigmented polish.

3.7 Other requirements

The polish shall also comply with the requirements given in Table 1 when tested according to the relevant methods given in Column 4 of Table 1.

TABLE 1 - Requirements for shoe polish

Sl. No. (1)	Characteristic (2)	Requirement (3)	Method of test (4)
i)	pH of water extract	6.0 to 9.0	**Appendix C**
ii)	Non-volatile matter, per cent by mass.	25 to 35	**Appendix D**
iii)	Ash of non-volatile matter, per cent by mass, max.	1.5	**Appendix E**
iv)	Softening point of non-volatile matter, °C, min.	60	**Appendix F**
v)	Flash point of volatile portion, °C, min.	35	**Appendix G** and **ISO 2719**
vi)	Distillation range of volatile portion, 0 °C	150 to 220	**Appendix G** and **ISO 3405**
vii)	Water, per cent by mass, max.	1.0	**SLS 535:Part 2**

4 PACKAGING AND MARKING

4.1 The shoe polish shall be packed in sound, clean, dry containers having lids which can be easily closed or opened and which prevent evaporation of the solvent. The containers shall be filled to contain not less than 90 per cent of the body capacity and shall be marked legibly and indelibly with the following information:

a) The words *Boot Polish* or *Shoe Polish*;

b) The colour of the polish;

c) Name and address of manufacturer (including country of origin);

d) Registered trade mark, if any;

e) Brand name, if any;

f) Net mass, in grams;

g) Date of manufacture; and

h) Batch or code number.

4.2 A number of such containers as agreed to between the buyer and the seller shall be suitably packed in a carton. Each carton shall be marked legibly and indelibly with the following information:

a) The words *Boot Polish* or *Shoe Polish*;

b) The colour of the polish;

c) Name and address of manufacturer (including country of origin);

d) Number of containers; and

e) Brand name, if any.

4.3 A number of such cartons as agreed to between the buyer and the seller may in turn be suitably packed in a box. Each box shall be marked legibly and indelibly with the following information:

a) The words *Boot Polish* or *Shoe Polish*;

b) The colour of the polish;

c) Name and address of manufacturer (including country of origin);

d) Registered trade mark, if any;

e) Brand name, if any;

f) Total number of containers; and

g) Batch or code number.

4.4 The containers may also be marked with the Certification Mark of the Sri Lanka Standards Institution illustrated below on permission being granted for such marking by the Sri Lanka Standards Institution.

NOTE - The use of the Sri Lanka Standards Institution Certification Mark (SLS Mark) is governed by the provisions of the Sri Lanka Standards Institution Act and the regulations framed thereunder. The SLS Mark on products covered by a Sri Lanka Standard is an assurance that they have been produced to comply with the requirements of that standard under a well defined system of inspection, testing and quality control, which is devised and supervised by the Institution and operated by the producer. SLS marked products are also continuously checked by the Institution for conformity to that standard as a further safeguard. Details of conditions under which a permit for the use of Certification Mark may be granted to manufacturers or processors may be obtained from the Sri Lanka Standards Institution.

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5 SAMPLING

5.1 Lot

In any consignment all the containers belonging to one batch of manufacture shall constitute a lot.

5.2 Scale of sampling

5.2.1 Samples shall be tested from each lot for ascertaining conformity of the product to the requirements of this specification.

5.2.2 The number of cartons to be selected from each lot shall be in accordance with Table 2.

5.2.3 If the cartons are packed in boxes, 20 per cent of the packages subject to a minimum of two packages shall be selected and as far as possible an equal number of cartons shall be drawn from each package so selected to form a sample as given in Table 2.

TABLE 2 - Scale of sampling

Number of cartons in the lot (1)	Number of cartons to be selected (2)
Up to 40	5
41 to 80	6
81 to 120	7
121 to 160	8
161 and above	10

5.2.4 The number of containers to be selected from a carton selected as in **5.2.2** shall depend on the number of containers in the carton. One container shall be drawn to represent each set of 10 containers or part thereof from cartons selected as in **5.2.2**.

5.2.5 The boxes, cartons and containers shall be selected at random. In order to ensure randomness of selection, random number tables as given in **SLS 428** shall be used.

5.3 Number of tests

5.3.1 Each container selected as in 5.2.4 shall be inspected for marking requirements.

5.3.2 Two containers shall be drawn from the containers selected as in **5.2.4** and these two containers shall be used to test the requirement for consistency given in 3.4 of this specification.

5.3.3 The remaining containers of the sample shall be opened and the vertical sections of the material shall be drawn with a cork borer with a hole of approximately 20-mm diameter, from several different points of the surface of all opened containers. The total quantity of material drawn from each container shall be the same. All materials drawn from different containers shall be thoroughly mixed to constitute a composite sample. This composite sample shall be examined for all requirements prescribed in 3 except for the requirement in 3.4 of this specification.

6 METHODS OF TEST

Tests shall be carried out as prescribed in Appendices A to H and SLS 535:Part 2.

7 CONFORMITY TO STANDARD

A lot shall be declared as conforming to the requirements of this specification, if the following conditions are satisfied.

7.1 Each container inspected as in 5.3.1 satisfies the marking requirements.

7.2 The two containers tested as in 5.3.2 satisfy the relevant requirements.

7.3 The test results on the composite sample satisfy the relevant requirements.

APPENDIX A

DETERMINATION OF CONSISTENCY

A.1 PROCEDURE

A.1.1 Maintain an original unopened container of polish at a temperature of 10 ± 1 °C for 2 hours. Open the lid, examine, and note the following :

A.1.1.1 No liquid has separated from the semi-solid mass.

A.1.1.2 The polish is soft and smooth to the touch and is 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 40 ± 1 °C for 2 hours. Open the lid, examine and note the following :

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

NOTE - The separation of a few drops of the liquid shall be allowed, if they are re-absorbed when the paste is brought to ordinary temperature.

APPENDIX B

TEST FOR PERFORMANCE AND DRYING TIME

B.1 PROCEDURE

B.1.1 Two non-glossy, smooth, clean unpolished leather pieces (not patent leather) of size 150 mm x 150 mm of the same colour as the polish, shall be used for this test.

B.1.2 Clean the grain surface of two leather pieces with a cloth or brush to remove any adhering dust particles. Apply the polish in a thin film to the smooth grain surface using a rag or brush and test after 2 minutes as follows :

B.1.2.1 *Polishing quality*

Rub a thin film of polish on one piece uniformly across the entire area in 50 strokes with a brush or a soft cloth and examine for gloss, visually.

B.1.2.2 *Drying time and tackiness*

a) Place the other piece of leather (B.1.2) which has not been allowed to dry for more than 5 minutes and place it with the surface facing up in one pan of a suitable physical balance and counterpoise it with weights. Place a weight of 2.5 kg on the pan containing the weights, and press the treated surface with the thumb until the two pans of the balance are counterpoised. Keep the thumb in this position for one minute and then slowly release.

b) There shall be no signs of stickness. Any polish that adheres to the thumb shall be such that it can be wiped out with a piece of cloth.

APPENDIX C

DETERMINATION OF pH OF WATER EXTRACT AND WATER SOLUBLE STAIN

C.1 PROCEDURE

Weigh, to the nearest milligram, about 15 g of the polish and add to 100 ml of freshly distilled water in a beaker. Raise the temperature, with stirring till all the wax has melted. Cool to a temperature of 27 ± 2 °C. Separate the aqueous layer. Note the colour (see 3.6) and determine the pH of the aqueous layer using a glass electrode.

APPENDIX D

DETERMINATION OF NON-VOLATILE MATTER

D.1 PROCEDURE

D.1.1 Weigh, to the nearest milligram, approximately 3 g of the material in a tared flat-bottomed dish of approximately 80 mm diameter provided with a cover. Heat, with cover removed, over a steam bath until the bulk of the volatile matter has evaporated and then in an oven at 115 ± 1 °C for about 4 hours. Cool in a desiccator, replace cover and weigh. Repeat the heating and cooling until the last two weighings do not differ by more than 1 milligram. Usually a second heating of about 2 hours will suffice. (Retain this residue for further testing).

D.1.2 Calculation

$$\text{Non-volatile matter, per cent by mass} = \frac{m_2}{m_1} \times 100$$

where,

m_2 = mass, in grams, of the non-volatile residue, and

m_1 = mass, in grams, of the sample taken for the test.

APPENDIX E

DETERMINATION OF ASH OF NON-VOLATILE MATTER

E.1 PROCEDURE

E.1.1 Weigh, to the nearest milligram, approximately 8 g of the material in a tared flat-bottomed dish of approximately 80 mm diameter provided with a cover. Heat without cover on a steam bath till the bulk of the volatile matter has evaporated and then in an oven at 115 ± 1 °C for about 4 hours. Then place the non-volatile matter in a tared, porcelain, crucible. Ignite at a temperature of 600 °C, and cool in a desiccator. Repeat this process of igniting, cooling and weighing until the difference in mass between two weighings does not exceed 1 mg.

E.2 PROCEDURE

$$\text{Ash of non-volatile matter, per cent by mass} = \frac{100\, m_2}{m_1 w} \times 100$$

where,

m_2 = mass, in grams, of the ash;

w = non-volatile matter, per cent by mass; and

m_1 = mass, in grams, of the sample taken for test.

APPENDIX F

DETERMINATION OF SOFTENING POINT OF NON-VOLATILE MATTER

F.1 APPARATUS

F.1.1 *Porcelain crucible*

F.1.2 *Thermometer*, sensitive to 0.1 °C.

F.2 PROCEDURE

Bring the non-volatile residue as obtained in Appendix D to a temperature slightly above its melting point. Dip a thermometer into the melted material so that the bulb is completely covered. Remove the thermometer after 5 seconds, rotate slowly in a vertical position, and before the material has quite solidified remove the excess drop of it on the bottom of the bulb by touching it with the hand. After letting the material on the bulb to solidify, place the thermometer in a test tube (approximately 150 mm x 25 mm) and cork loosely so that the bulb is 25 mm from the bottom of the tube. Suspend the tube in a beaker of water so that the bottom of the tube is about 25 mm above the bottom of the beaker. Gradually raise the temperature of the water to about 15 °C below the probable melting point and then raise the temperature at the rate of 1 °C to 1.5 °C per minute until a drop of clear liquid forms at the bottom of the bulb. The temperature at which this occurs is the softening point of the non-volatile residue.

APPENDIX G

DETERMINATION OF FLASH POINT

G.1 PROCEDURE

G.1.1 Distill off in vacuum all the volatile matter, from about 400 g of the material. Dry the distillate by treatment with anhydrous magnesium sulfate or fused calcium chloride.

G.1.2 Determine the flash point of the distillate obtained in **G.1.1** by the Pensky-Martens closed cup method prescribed in **ISO 2719**.

APPENDIX H

DETERMINATION OF DISTILLATION RANGE

H.1 Determine the distillation range of the distillate obtained in **G.1.1** by the method prescribed in ISO 3405.

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to SLS 126 : 1986

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Clause 3.7

TABLE I

Serial No. vi)

In Column 2, delete "0^0C" and substitute "^{0}C".

In Column 3, delete "150 to 220" and substitute "125 - 240".

SLS CERTIFICATION MARK

The Sri Lanka Standards Institution is the owner of the registered certification mark shown below. Beneath the mark, the number of the Sri Lanka Standard relevant to the product is indicated. This mark may be used only by those who have obtained permits under the SLS certification marks scheme. The presence of this mark on or in relation to a product conveys the assurance that they have been produced to comply with the requirements of the relevant Sri Lanka Standard under a well designed system of quality control inspection and testing operated by the manufacturer and supervised by the SLSI *which includes surveillance inspection of the factory, testing of both factory and market samples.*

Further particulars of the terms and conditions of the permit may be obtained from the Sri *Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.*

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SRI LANKA STANDARDS INSTITUTION

The Sri Lanka Standards Institution (SLSI) is the National Standards Organization of Sri Lanka established under the Sri Lanka Standards Institution Act No. 6 of 1984 which repealed and replaced the Bureau of Ceylon Standards Act No. 38 of 1964. The Institution functions under the Ministry of Science & Technology.

The principal objects of the Institution as set out in the Act are to prepare standards and promote their adoption, to provide facilities for examination and testing of products, to operate a Certification Marks Scheme, to certify the quality of products meant for local consumption or exports and to promote standardization and quality control by educational, consultancy and research activity.

The Institution is financed by Government grants, and by the income from the sale of its publications and other services offered for Industry and Business Sector. Financial and administrative control is vested in a Council appointed in accordance with the provisions of the Act.

The development and formulation of National Standards is carried out by Technical Experts and representatives of other interest groups, assisted by the permanent officers of the Institution. These Technical Committees are appointed under the purview of the Sectoral Committees which in turn are appointed by the Council. The Sectoral Committees give the final Technical approval for the Draft National Standards prior to the approval by the Council of the SLSI.

All members of the Technical and Sectoral Committees render their services in an honorary capacity. In this process the Institution endeavours to ensure adequate representation of all view points.

In the International field the Institution represents Sri Lanka in the International Organization for Standardization (ISO), and participates in such fields of standardization as are of special interest to Sri Lanka.

Printed at the Sri Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.