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ICS 87.060.30

DRAFT EAST AFRICAN STANDARD

Floor polish — Specification — Part 1: solvent type (liquid and paste)

EAST AFRICAN COMMUNITY

Second Edition 2023

Copyright notice

Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in the East African Community. It is envisaged that through harmonized standardization, trade barriers that are encountered when goods and services are exchanged within the Community will be removed.

The Community has established an East African Standards Committee (EASC) mandated to develop and issue East African Standards (EAS). The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the public and private sector organizations in the community.

East African Standards are developed through Technical Committees that are representative of key stakeholders including government, academia, consumer groups, private sector and other interested parties. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the Principles and procedures for development of East African Standards.

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

The committee responsible for this document is Technical Committee EASC/TC 070, Paints, varnishes and related products.

Attention is drawn to the possibility that some of the elements of this document may be subject of patent rights. EAC shall not be held responsible for identifying any or all such patent rights.

This second edition cancels and replaces the first edition (EAS 290-2:2002), which has been technically revised.

EAS 290 consists of the following parts, under the general title Polishes — Specification:

Part 1: Floor polish solvent type (liquid and paste)

Part 2: Floor polish water emulsion buffable type

Floor polish — Specification – Part 1: solvent type (liquid and paste)

1 Scope

This Draft East African Standard specifies the requirements, sampling and test methods for solvent- based floor polishes (liquid and paste) intended for use on all wooden and solvent resistant surfaces.

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.

ASTM D217, *Standard Test Methods for Cone Penetration of Lubricating Grease*

ASTM D3278, *Standard Test Methods for Flash Point of Liquids by Small Scale Closed-Cup Apparatus*

ASTM E303, *Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester*

ISO 2813, *Paints and varnishes— Determination of gloss value at 20°, 60° and 85°*

ISO 2884-1, *Paints and varnishes — Determination of viscosity using rotary viscometers — Part 1: Cone-and-plate viscometer operated at a high rate of shear*

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

ISO 4618, *Paints and varnishes — Terms and definitions*

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

ISO 9117-3, *Paints and varnishes— Drying tests— Part 3: Surface-drying test using ballotini*

ISO 9117-4, *Paints and varnishes — Drying tests — Part 4: Test using a mechanical recorder*

3 Terms and definitions

For the purposes of this standard, the terms and definitions given in ISO 4618 shall 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

4 Types

The floor polish shall be of two types:

a) Type I — buffing type floor polish

b) Type II — self shining floor polish -A floor polish that dries to a shine.

5 Requirements

5.1 General requirements

5.1.1 The solvent type floor polish shall have no offensive odour.

5.1.2 The solvent type floor polish shall not be harmful to the surfaces for which it is recommended.

5.1.3 The solvent type floor polish shall be in the form of paste or liquid. The liquid floor polish shall be of free-flowing consistency and shall maintain its flow characteristics between the temperature 15 °C and 40 °C. The paste floor polish shall be of smooth consistency, homogenous and semi–solid mass. There shall be no evidence of grit and shall not flow at ordinary temperatures.

5.1.3.1 Liquid polish

The product shall be of free-flowing consistency and shall maintain its flow characteristics between the temperature 15 °C and 40 °C.

At 25 °C it shall have a viscosity range of 40 centipoise – 50 centipoise (or in centristrokes = centipoise/specific gravity).

5.1.3.2 Paste polish

The paste polish shall be of smooth consistency, homogenous, semi–solid mass, there shall be no evidence of grit. It shall not flow at ordinary temperatures.

5.1.4 Paste polish hardness

The penetration of polishes, shall be 40 units – 60 units (tenths of millimetre) at 17 °C and 65 units – 85 units at 38 °C.

5.1.5 Product stability

5.1.5.1 Liquid polish

Separation shall be less than 5 % when tested in accordance with Clause A.1.

5.1.5.2 Paste polish

There shall be no separation of the solvent from the polishes when tested in accordance with Clause A.2.

5.2 Specific requirements

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

Table 1 — Specific requirements for solvent floor polish

S/No.	Characteristic	Requirements		Test method
		Liquid	Paste	
1)	Non-volatile matter (solid content), % m/m	7- 17	20 - 35	ISO 3251
2)	Viscosity at 25°C, cP	40-50	-	ISO 2884-1
3)	Softening point of non-volatile matter, °C, min Initial Final	60 70		ISO 4625-1
4)	Penetration, units Pen(s) at 17 °C at 38°C	 - -	 40 - 60 65 - 85	ASTM D217
5)	Ash of non-volatile matter, % m/m, max.	1.5		IS 8541
6)	Stability	To pass test		Annex A
7)	pH of water extract	6.0 - 9.0		Annex B
8)	Flash point of organic solvent, min. °C	35		ASTM D3278
9)	Hard drying time, minutes	<3	<10	ISO 9117-3 ISO 9117-4
10)	Gloss, at 60°, min Buffing type floor polish Self-shining polishing type	32 45		ISO 2813
11)	Slip resistance	<0.5		ASTM E303

NOTE Other test methods for the determination of flashpoint e.g. seta flash method can be used as non-reference methods.

5.3 Performance characteristics

5.3.1 Applicability and polishing characteristics

When tested in accordance with relevant method, the polish shall be so constituted and prepared that on application by means of a clean cloth on a surface previously cleaned and stripped of old wax and soil, it shall spread easily and evenly and shall give with minimum buffing (Type 1) a firm and glossy surface free from any greasiness or tackiness.

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

5.3.2 Tackiness- TZ

A film of the floor polish (liquid and paste), applied as directed, shall pass the tackiness test.

5.4 Storage properties

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 form the date of manufacture. It shall also show no more than 1 mm shrinkage from edges for paste polish.

5.5 Sampling

Sampling shall be done in accordance with ISO 15528

6 Packaging

6.1 The floor polish shall be packaged in corrosion resistant containers, strong enough to with stand normal usage, transportation and all kinds of contaminations.

6.2 The containers shall be fitted with lids which will prevent drying out of materials, and shall be easily closed and opened.

7 Labelling

Each package shall be legibly and indelibly labelled either in English, Kiswahili or French or a combination, with the following information

a) manufacturer's name and physical address and/or registered trademark;

b) country of origin;

c) name of product as solvent floor polish;

d) type;

e) description of the surface (flooring) on which the polish is to be applied;

f) description of the product

g) batch identification;

h) net weight/volume of material when packed;

i) any cautionary notices, e.g. storage conditions surfaces not to be polished etc.;

j) date of manufacture;

k) best before date; and

l) instructions for use and safety.

Annex A
(normative)

Determination of product stability

A.1 Liquid polish

Fill stoppered graduated 100 ml cylinder with a uniform sample and leave undisturbed for 24 hours at 40 °C ± 1 °C. Then allow the sample to stand on additional 24 hour at 15 °C ± 1 °C and then determine the degree of settling separation should be less than 5 %.

A.2 Paste polish

Examine the sample of paste polish after standing in a closed container at 40 ± 1°C for 24 hours followed by 24 hours at 15 °C ± 1 °C.

A.3 Results

There shall be not separation of solvent from wax.

Annex B
(normative)

Determination of pH of water extract

Procedure

Add about 15 g of the polish in 100 mL of distilled water in a beaker. Heat with stirring till all 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 the meter having a glass electrode.

Bibliography

EAS 290-2: 2002, Polishes — Specification – Part 2: Floor polish solvent type (liquid and paste)