DEAS 854: 2023

ICS 87.040

DRAFT EAST AFRICAN STANDARD

Thinner for nitrocellulose resin-based paints and lacquers — Specification

PUBLIC REVIEW DRAFT

EAST AFRICAN COMMUNITY

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2023

Second Edition

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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, vanishes and related products.*

This second edition cancels and replaces the first edition (EAS 854:2016), which has been technically revised.

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Thinner for nitrocellulose resin-based paints and lacquers — Specification

1 Scope

This Draft East African Standard specifies requirements, sampling and test methods for thinners for nitro-cellulose resin- based paints and lacquers.

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 D 86, *Standard test method for distillation of petroleum products at atmospheric pressure*

ASTM D 1613, *Standard test method for acidity in volatile solvents and chemical intermediates used in paints, varnish, lacquer and related products*

ASTM D 5580-13, *Standard test method for determination of Benzene, Toluene, Ethylbenzene, p/mXylene, o-Xylene, C9 and heavier aromatics, and total aromatics in finished gasoline by gas chromatography*

ASTM D 5769-10, *Standard test method for determination of Benzene, Toluene, and total aromatics in finished gasolines by gas chromatography/mass spectrometry*

ISO 1523, *Determination of flash point — Closed cup equilibrium method*

ISO 2811 (all parts), *Paints and varnishes — Determination of density*

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

ISO 2884-2, *Paints and varnishes — Determination of viscosity using rotary viscometers — Part 2: Disk or ball viscometer operated at a specified speed*

ISO 3248, *Paints and varnishes — Determination of the effect of heat*

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

ISO 3668, *Paints and varnishes — Visual comparison of the colour of paints*

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

ISO 6504-3, *Paints and varnishes — Determination of hiding power — Part 3: Determination of contrast ratio of light coloured paints at a fixed spreading rate*

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

ISO 15528, *Paints, varnishes and raw materials for paints and varnishes — Sampling*

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ISO 16000-28, *Indoor air — Part 28, Determination of odour emissions from building products using test chambers*

ISO 17132, *Paints and varnishes — T-bend test*

ISO 21207, *Corrosion test in artificial atmospheres — Accelerated corrosion test involving alternate exposure to corrosion promoting gases, neutral salt spray and drying*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4618 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 Requirements

4.1 General requirements

4.1.1 Composition

The thinner shall consist of organic liquids only and shall be clear and free from sediment and suspended matter.

4.1.2 Compatibility

4.1.2.1 When paint or lacquer based on nitro-cellulose is thinned in the ratio of one part of nitro-cellulose paint or lacquer with five parts by volume of thinner, the mixed material shall be smooth and uniform.

4.1.2.2 It shall not show the tendency of breakdown, coagulation or precipitation of the paint.

4.2 Specific requirements

The thinner for nitrocellulose resin-based paint and lacquers shall comply with the specific requirements given in Table 1 when tested in accordance with the test methods therein.

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Table 1 — Specific requirements of thinners for nitrocellulose resin-based paints and lacquers.

S No.	Parameter	Requirement	Test method
i.	Relative density at 20 ºC, min.	0.780	ISO 2811
ii.	Acidity (as acetic acid), %, max.	0.005	ASTM D 1613
iii.	Toxicity	To pass the test	ASTM D 5580, ASTM D 5769
iv.	Colour	To pass the test	ISO 3668
v.	Odour	To pass the test	ISO 16000-28
vi.	Spot Test	To pass the test	Annex A
vii.	Distillation, ºC: • Initial boiling point, min. • Dry point, max. All partner states to collect data and submit findings together with the public review comments.	120 170	ASTM D 86
viii.	Residue on evaporation mg/100 mL, max.	5	ASTM D 86
ix.	Total hydrocarbon content, % max.	65	ASTM D 5580-13
x.	Alcohols, esters, ketones, etc, %, max.	35	ASTM D5769
xi.	Flash point, °C, min.	24	ISO 1523

5 Storage stability

Thinner for nitrocellulose resin-based paints and lacquers when stored in the original sealed container under room temperature shall meet all the requirements for a period of at least one year from the date of manufacture.

6 Packaging

Thinner for nitrocellulose resin-based paints and lacquers shall be packaged in a suitable container that prevents it from deterioration during storage, transportation and normal handling

7 Labelling

7.1 The labelling shall be either in English, Kiswahili or French or in combination as agreed between the manufacturer and the supplier. Any other language shall be optional.

7.2 The thinners shall be packaged in containers that are legibly and indelibly marked with the following information:

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a) name of the product as “thinner for nitrocellulose resin-based paints and lacquers”;

b) manufacturer’s name and physical address and /or registered trade mark;

c) indication of colour/colour code;

d) date of manufacture;

e) net content;

f) batch/code number;

g) cautionary statement/symbols with the words : “Inflammable liquid”;

h) country of origin;

i) expiry date or best before date; and

j) instructions for use, storage and disposal.

8 Sampling

Sampling shall be done in accordance with ISO 15528.

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Annex A
(informative)

Spot test

A.1 Procedure

A.1.1 Apply one to three drops of thinner on a Whiteman filter paper No. 42

A.1.2 Leave the thinner for 1h to evaporate.

A.1.3 Examine the filter paper for any spot after one 1h

A.2 Results

There shall be no visible spot on the filter paper.

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Bibliography

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