
**Binders for paints and varnishes —
Linseed stand oil — Requirements and
methods of test**

*Liants pour peintures et vernis — Standolies d'huile de lin — Exigences et
méthodes d'essai*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 276 was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 10, *Test methods for binders for paints and varnishes*.

This second edition cancels and replaces the first edition (ISO 276:1981), which has been technically revised. The major changes are that the determinations of odour, ash and unsaponifiable-matter content and the tests for polybromide, the presence of colophony (rosin) and the presence of blown oils have been deleted. Standard test methods for the determination of viscosity, clarity and colour have been added.

Binders for paints and varnishes — Linseed stand oil — Requirements and methods of test

1 Scope

This International Standard specifies the requirements and the corresponding test methods for five types of linseed stand oil suitable for paints and varnishes.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 2114:2000, *Plastics (polyester resins) and paints and varnishes (binders) — Determination of partial acid value and total acid value*

ISO 3681:1996, *Binders for paints and varnishes — Determination of saponification value — Titrimetric method*

ISO 4630:1997, *Binders for paints and varnishes — Estimation of colour of clear liquids by the Gardner colour scale*

ISO 12058-1:1997, *Plastics — Determination of viscosity using a falling-ball viscometer — Part 1: Inclined-tube method*

ISO 15715:—¹⁾, *Binders for paints and varnishes — Determination of turbidity*

3 Term and definition

For the purposes of this International Standard, the following term and definition apply.

3.1

linseed stand oil

polymerized linseed oil obtained from linseed oil by heat treatment and conforming to the requirements given in this International Standard

NOTE Certain linseed stand oils are also referred to as “lithographic varnishes”.

1) To be published.

4 Requirements and test methods

The five types of linseed stand oil shall meet the requirements given in Table 1.

Table 1 — Required characteristics and test methods for linseed stand oil

Characteristic			Requirement					Test method
			Stand oil 1 (extra-low viscosity)	Stand oil 2 (low viscosity)	Stand oil 3 (medium viscosity)	Stand oil 4 (high viscosity)	Stand oil 5 (extra-high viscosity)	
Viscosity	at 20 °C	Pa·s ^a	max. 1	> 1 but ≤ 4	> 4 but ≤ 8	> 8 but ≤ 16	> 16	ISO 12058-1
	at 23 °C	Pa·s ^a	max. 0,9	> 0,9 but ≤ 3,4	> 3,4 but ≤ 6,8	> 6,8 but ≤ 13	> 13	
	at 25 °C	Pa·s ^a	max. 0,8	> 0,8 but ≤ 3	> 3 but ≤ 6	> 6 but ≤ 11	> 11	
Turbidity			To be agreed between the interested parties					ISO 15715
Colour (Gardner)			To be agreed between the interested parties					ISO 4630
Acid value	mg KOH/g		max. 6	max. 10	max. 12	max. 15	max. 20	ISO 2114
Saponification value	mg KOH/g		186 to 200					ISO 681
a 1 Pa·s = 10 poise.								

5 Test report

The test report shall contain at least the following information:

- a reference to this International Standard (ISO 276);
- all details necessary for complete identification of the product tested (manufacturer, brand name, batch number, etc.);
- the results of the tests, and whether or not the product complies with the relevant specification limits;
- any deviation, by agreement or otherwise, from the test methods specified;
- any specific agreements between the interested parties;
- the dates of the tests.