

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 276

LINSEED STAND OILS

1st EDITION

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BRIEF HISTORY

The ISO Recommendation R 276, *Linseed Stand Oils*, was drawn up by Technical Committee ISO/TC 35, *Raw Materials for Paints, Varnishes and Similar Products*, the Secretariat of which is held by the Nederlands Normalisatie-instituut (NNI).

Work on this question by the Technical Committee began in 1950 and led in 1959 to the adoption of a Draft ISO Recommendation.

In November 1959, this Draft ISO Recommendation (No. 328) was circulated to all the ISO Member Bodies for enquiry. It was approved by the following Member Bodies:

Austria	Greece	New Zealand
Belgium	India	Portugal
Burma	Ireland	Spain
Chile	Israel	Sweden
Czechoslovakia	Italy	United Kingdom
Denmark	Japan	U.S.A.
Germany	Netherlands	U.S.S.R.

One Member Body opposed the approval of the Draft:

France

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided in November 1962, to accept it as an ISO RECOMMENDATION.

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LINSEED STAND OILS

1. SCOPE

This ISO Recommendation defines the important requirements of linseed stand oils and the methods of test for these requirements.

2. DEFINITION

Linseed stand oils are polymerized linseed oils obtained only by heat from linseed oil and conforming to the requirements given below.

NOTE. — Certain of these materials are also referred to as "lithographic varnishes".

3. REQUIRED CHARACTERISTICS AND THEIR TOLERANCES

The linseed stand oils should have the following characteristics:

Property	Stand oil 1 extra low	Stand oil 2 low	Stand oil 3 medium	Stand oil 4 high	Stand oil 5 extra high	Clause describing test method	
Viscosity,* poises	at 20 °C (at 25 °C)	max. 10 (8)	10 to 40 (8 to 30)	40 to 80 (30 to 60)	80 to 160 (60 to 110)	min. 160 (110)	5.1
Ash, max.	%	0.10	0.10	0.10	0.10	0.10	5.2
Acid value, max.		6	10	15	20	20	5.3
Saponification value		186 to 200	186 to 200	186 to 200	186 to 200	186 to 200	5.4
Unsaponifiable matter, max.	%	2.0	2.0	2.0	2.0	2.0	5.5
Polybromide test		negative	—	—	—	—	5.6
Test for presence of colophony		negative	negative	negative	negative	negative	5.7
Test for presence of blown oils		negative	negative	negative	negative	negative	5.8
Clearness and colour	To be agreed between purchaser and vendor					—	
Odour	Similar to that of a reference sample agreed between purchaser and vendor **					—	

* For lithographic varnishes, the viscosity to be specified should be agreed between purchaser and vendor. A deviation of 10% from the specific viscosities is permitted.

** The arbitration method should be agreed beforehand between purchaser and vendor.

4. SAMPLING

See ISO Recommendation R 150, * *Sampling Raw Materials for Paints and Varnishes*.

5. TEST METHODS

5.1 Viscosity

Any method by which can be measured the viscosity of liquids by means of a falling sphere.

5.2 Ash

Refer to the relevant method described in the Annex to ISO Recommendation R 150.**

5.3 Acid value

Refer to the relevant method described in the Annex to ISO Recommendation R 150.**

5.4 Saponification value

Refer to the relevant method described in the Annex to ISO Recommendation R 150.**

5.5 Unsaponifiable matter

Refer to the relevant method described in the Annex to ISO Recommendation R 150.**
The solvent to be used should be agreed between purchaser and vendor.

5.6 Polybromide test

5.6.1 Reagents

5.6.1.1 Sulphuric acid, 4N.

5.6.1.2 Potassium hydroxide, 1N ethanolic solution.

5.6.1.3 Sodium sulphate, anhydrous.

5.6.1.4 Bromine, analytical grade.

5.6.1.5 Diethyl ether, $d_{20} = 0.712$ to 0.716 having a residue non-volatile at $80\text{ }^{\circ}\text{C}$ of not more than 0.001% .

5.6.1.6 Light petroleum, boiling range 40 to $60\text{ }^{\circ}\text{C}$.

* At present Draft ISO Recommendation No. 731.

** ISO Recommendation R 150, *Raw, Refined and Boiled Linseed Oil*, gives in the Annex extracts from the "Standard Methods of the Oils and Fats Section" and "Standard Methods of the Organic Coatings Section" of the International Union of Pure and Applied Chemistry (IUPAC).