International Standard

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Second edition
2026-04

General methods of test for pigments and extenders —

Part 5: Determination of oil absorption value

Méthodes générales d'essai des pigments et matières de charge —

Partie 5: Détermination de la prise d'huile

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 256, *Pigments, dyestuffs and extenders*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 298, *Pigments and extenders*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 787-5:1980), which has been technically revised.

The main changes are as follows:

— the normative references have been updated;

— in Clause 5, a dropping bottle with a pipette has been added and the accuracy of the balance has been specified;

— in Clause 7, the procedure of conditioning and its parameters have been added as 7.2, and the temperature and humidity has been specified during the test;

— in 7.3, Table 1, the table header and expected oil absorption values, expressed in grams of oil per 100 g of product, have been added;

— in 7.4, an additional method using the dropping bottle for adding the oil has been added as 7.4.2;

— in Clause 8, the expression of results by using the additional dropping bottle method (as 8.2) and two calculation formulas have been added;

— a bibliography has been added.

A list of all parts in the ISO 787 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

General methods of test for pigments and extenders —

Part 5:
Determination of oil absorption value

1 Scope

This document specifies a general method of test for determining the oil absorption value of a sample of pigment or extender. The oil absorption value is usually required to be compared with the value determined at the same time on an agreed sample of the product.

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.

ISO 150, *Raw, refined and boiled linseed oil for paints and varnishes — Specifications and methods of test*

ISO 385, *Laboratory glassware — Burettes*

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

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
oil absorption value
quantity of refined linseed oil that is absorbed under defined conditions by a sample of pigment or extender

Note 1 to entry: The oil absorption value can be expressed either on a volume/mass basis or on a mass/mass basis.

[SOURCE: ISO 18451-1:2019, 3.93]

4 Reagent

Refined linseed oil shall be used, complying with the requirements of ISO 150, and having an acid value of 5,0 mg to 7,0 mg KOH per gram. The density of the oil is about 0,93 g/ml at 23 °C.

5 Apparatus

5.1 Plate, of ground glass or marble, at least 300 mm × 400 mm.