

## SLOVENSKI STANDARD SIST EN ISO 787-18:1997

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Splošne metode preskušanja pigmentov in polnil - 18. del: Določanje ostanka na situ - Mehanski izpiralni postopek (ISO 787-18:1983)

General methods of test for pigments and extenders - Part 18: Determination of residue on sieve - Mechanical flushing procedure (ISO 787-18:1983)

Allgemeine Prüfverfahren für Pigmente und Füllstoffe - Teil 18: Bestimmung des Siebrückstandes - Mechanisches Spülverfahren (ISO 787-18:1983)/

Méthodes générales d'essai des pigments et matieres de charge - Partie 18:

Détermination du refus sur tamis - Méthode mécanique avec liquide d'entraînement (ISO 787-18:1983)

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Ta slovenski standard je istoveten z: EN ISO 787-18:1995

ICS:

87.060.10 Pigmenti in polnila Pigments and extenders

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**SIST EN ISO 787-18:1997** 

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**EN ISO 787-18** 

NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

August 1995

ICS 87.060.10; 87.060.30

Descriptors:

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paints, pigments, determination, sieve residues

English version

General methods of test for pigments and extenders - Part 18: Determination of residue on sieve - Mechanical flushing procedure (ISO 787-18:1983)

Méthodes générales d'essai des pigments et

Allgemeine Prüfverfahren für Pigmente und matières de charge - Partie 18: Détermination DARD production des du refus sur tamis - Méthode mécanique avec liquide d'entraînement (ISO 787-18:1983)

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This European Standard was approved by CEN on 1995-03-23. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

## CEN

European Committee for Standardization Comité Européen de Normalisation Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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## **Foreword**

The text of the International Standard from ISO/TC 35 "Paints and varnishes" of the International Organization for Standardization (ISO) has been taken over as a European Standard by the Technical Committee CEN/TC 298 "Pigments and extenders".

This European Standard shall be given the status of a National Standard, either by publication of an identical text or by endorsement, at the latest by February 1996, and conflicting national standards shall be withdrawn at the latest by February 1996.

According to CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

#### **Endorsement notice**

The text of the International Standard ISO 787-18:1983 has been approved by CEN as a European Standard without any modification.

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## International Standard



INTERNATIONAL ORGANIZATION FOR STANDARDIZATION●МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ●ORGANISATION INTERNATIONALE DE NORMALISATION

# General methods of test for pigments and extenders — Part 18: Determination of residue on sieve — Mechanical flushing procedure

Méthodes générales d'essai des pigments et matières de charge — Partie 18 : Détermination du refus sur tamis — Méthode mécanique avec liquide d'entraînement h STANDARD PREVIEW

Second edition -1983-02-15

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UDC 667.622 : 620.1 : 621.928

Descriptors: paints, pigments, determination, sieve residues.

Ref. No. ISO 787/18-1983 (E)

## **Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been authorized 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 787/18 was developed by Technical Committee ISO/TC 35, Paints and varnishes, and was circulated to the member bodies in November 1980. standards.iten.aij

It has been approved by the member bodies of the following countries: 18:1997

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Austria Belgium Israel Brazil Italy Canada Kenya

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China Czechoslovakia Egypt, Arab Rep. of Germany, F. R.

Korea, Dem. P. Rep. of Spain Korea, Rep. of Sweden Mexico Switzerland Netherlands

Hungary

Norway

United Kingdom **USSR** 

South Africa, Rep. of

The member body of the following country expressed disapproval of the document on technical grounds:

France

This International Standard cancels and replaces ISO 787/XVIII-1973, of which it constitutes a technical revision.

International Organization for Standardization, 1983 •

Printed in Switzerland

The purpose of this International Standard is to establish a series of general test methods for pigments and extenders which are suitable for all or many of the individual pigments and extenders for which specifications might be required. In such cases, a cross-reference to the general method should be included in the International Standard relating to that pigment or extender, with a note of any detailed modifications which might be needed in view of the special properties of the product in question.

Technical Committee ISO/TC 35, *Paints and varnishes*, decided that all the general methods should be published as they become available, as parts of a single International Standard, in order to emphasize the relationship of each to the whole series.

The Technical Committee also decided that, where two or more procedures were widely used for determining the same or a similar characteristic of a pigment or extender, there would be no objection to including more than one of them in the ISO series. In such cases it will, however, be essential to state clearly in a specification which method is to be used and, in the test report, which method has been used.

## Parts of the series already published are as follows:

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19fd Part 0152/Comparison of colour of pigments

Part 2 : Determination of matter volatile at 105 °C

Part 3 : Determination of matter soluble in water - Hot extraction method

Part 4 : Determination of acidity or alkalinity of the aqueous extract

Part 5: Determination of oil absorption value

Part 7 : Determination of residue on sieve — Water method — Manual procedure

Part 8 : Determination of matter soluble in water — Cold extraction method

Part 9 : Determination of pH value of an aqueous suspension

Part 10 : Determination of density — Pyknometer method

Part 11: Determination of tamped volume and apparent density after tamping

Part 13: Determination of water-soluble sulphates, chlorides and nitrates

Part 14: Determination of resistivity of aqueous extract

Part 15: Comparison of resistance to light of coloured pigments of similar types

Part 16: Comparison of relative tinting strength (or equivalent colouring value) and colour on reduction in linseed stand oil using the automatic muller

Part 17: Comparison of lightening power of white pigments

Part 18: Determination of residue on sieve — Mechanical flushing procedure

Part 19: Determination of water-soluble nitrates — Salicylic acid method

Part 20 : Comparison of ease of dispersion — Oscillatory shaking method

Part 21: Comparison of heat stability of pigments using a stoving medium

Part 22 : Comparison of resistance to bleeding of pigments

Part 23: Determination of density (using a centrifuge to remove entrained air)

Part 24: Determination of relative tinting strength of coloured pigments and relative scattering power of white pigments — Photometric method

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## General methods of test for pigments and extenders — Part 18: Determination of residue on sieve — Mechanical flushing procedure

#### Introduction

This document is a part of ISO 787, General methods of test for pigments and extenders.

## Scope and field of application

- 1.1 This part of ISO 787 specifies a general method for de termining the residue on a sieve from a sample of pigment or extender dispersed in water, using a mechanical flushing S procedure. This method can also be applied to the examination of other powders or granules which are insoluble in water. It is neither applicable to hydrophobic nor pelletized pigments and https://standards.iteh.ai/catalog/standards/sist/5f041a57-aa54-40b3-9cf0extenders.
- 1.2 ISO 787/7 specifies a general method of test for determining the residue on a sieve from a sample of pigment or extender dispersed in water, using a manual procedure.
- 1.3 For most pigments and extenders, these two test methods will give different results, and it is therefore essential to state clearly in a specification which method is to be used, and in the test report, which method has been used.

NOTE — When either of these general methods is applicable to a given pigment or extender, only a cross-reference to it should be included in the International Standard relating to that pigment or extender, with a note of any detailed modification which may be needed in view of the special properties of the material under consideration. Only when neither of these general methods is applicable to a particular material a special method for determination of residue on sieve should be specified.

## References

ISO 565, Test sieves - Woven metal wire cloth, perforated plate and electroformed sheet — Nominal sizes of openings.

ISO 787/7, General methods of test for pigments and extenders - Part 7: Determination of residue on sieve - Water method - Manual procedure.

ISO 842, Raw materials for paints and varnishes — Sampling.

#### 3 Definition

residue on sieve (R): The coarse particles which remain on a sieve of a specified nominal aperture when a test is performed in accordance with this International Standard.

## **Principle**

In the test apparatus, the pigment or extender under test, dispersed in water, is brought into centrifugal motion by a system of rotating jets of water. The water flushes the fine particles through the sieve, the coarse particles being retained on the sieve. The residue on the sieve is dried and weighed.

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- 5.1 Filtered tap water, at a pressure of 300  $\pm$  20 kPa above atmospheric.
- **5.2** Wetting agents, such as ethanol 95 % (V/V) or sulphonates, etc., for pigments and extenders that are difficult to wet with water. The selection of an appropriate wetting agent shall be agreed between the parties, and the wetting agent used shall be stated in the test report.

## 6 Apparatus

Ordinary laboratory apparatus and

6.1 Mechanical flushing apparatus (see the figure) consisting of the following items.

## 6.1.1 Container.

6.1.2 Cover, with protective hood, driving motor, hollow shaft with two nozzles with an internal diameter of 1  $\pm$  0,2 mm, head with three nozzles of diameter 1  $\pm$  0,2 mm, water supply connection, filling funnel, handle and overflow.

NOTE - With the specified pressure and internal diameter of the nozzles the water flow will be about 5 l/min. It is recommended that