General methods of test for pigments and extenders - Part 4: Determination of acidity or alkalinity of the aqueous extract (ISO 787-4:1981)

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NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 787-4:2017 sisaldab Euroopa standardi EN ISO 787-4:2017 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 787-4:2017 consists of the English text of the European standard EN ISO 787-4:2017.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 18.10.2017.	Date of Availability of the European standard is 18.10.2017.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 87.060.10

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 787-4

October 2017

ICS 87.060.10

English Version

General methods of test for pigments and extenders - Part 4: Determination of acidity or alkalinity of the aqueous extract (ISO 787-4:1981)

Méthodes générales d'essai des pigments et matières de charge - Partie 4: Détermination de l'acidité ou de l'alcalinité de l'extrait aqueux (ISO 787-4:1981)

Allgemeine Prüfverfahren für Pigmente und Füllstoffe - Teil 4: Bestimmung der Acidität oder Alkalitat des wässrigen Extraktes (ISO 787-4:1981)

This European Standard was approved by CEN on 21 September 2017.

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This European Standard exists 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 CEN-CENELEC Management Centre has the same status as the official versions.

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Ref. No. EN ISO 787-4:2017 E

European foreword

The text of ISO 787-4:1981 has been prepared by Technical Committee ISO/TC 256 “Pigments, dyestuffs and extenders” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 787-4:2017 by Technical Committee CEN/TC 298 “Pigments and extenders” the secretariat of which is held by DIN.

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 April 2018, and conflicting national standards shall be withdrawn at the latest by April 2018.

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Endorsement notice

The text of ISO 787-4:1981 has been approved by CEN as EN ISO 787-4:2017 without any modification.

General methods of test for pigments and extenders — Part 4 : Determination of acidity or alkalinity of the aqueous extract

0 Introduction

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

1 Scope and field of application

This part of ISO 787 specifies a general method of test for determining the acidity or alkalinity of the aqueous extract of a sample of pigment or extender.

NOTE — When this general method 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 in question. Only when this general method is not applicable to a particular material should a special method for determination of acidity or alkalinity be specified.

2 References

ISO/R 385, *Burettes.*

ISO 787, *General methods of test for pigments and extenders*

— *Part 3 : Determination of matter soluble in water — Hot extraction method.*

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

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

3 Reagents

During the analysis use only reagents of recognized analytical grade and only distilled water or water of at least equivalent purity.

3.1 Hydrochloric acid, standard volumetric solution, c(HCl) = 0,05 mol/l.

3.2 Sodium hydroxide, standard volumetric solution, c(NaOH) = 0,05 mol/l, or **potassium hydroxide,** standard volumetric solution, c(KOH) = 0,05 mol/l.

For method A :

3.3 Methyl red indicator, 1 g/l solution in 60 % (V/V) ethanol.

4 Apparatus

Ordinary laboratory apparatus and

4.1 Burette, of capacity 50 ml, complying with the requirements of ISO/R 385.

For method B :

4.2 pH measuring device, capable of measurement to 0,1 unit, calibrated against buffer solutions of known pH value at the temperature of the test.

5 Sampling

Take a representative sample of the material to be tested as described in ISO 842.

6 Procedure

Carry out the determination in duplicate.

6.1 Test solution

Follow the procedure specified in ISO 787/3, to the stage of obtaining a perfectly clear filtrate.

NOTE — If agreed or specified, the procedure described in ISO 787/8 (cold extraction method) may be followed. In this case, the period of stirring should be reduced to 5 min.

6.2 Determination

NOTE — If the filtrate is coloured the use of the indicator (6.2.1) is not suitable. The potentiometric method (6.2.2) should be used.

6.2.1 With indicator solution (method A)

Add 5 drops of the methyl red indicator (3.3) to 100 ml of the test solution (6.1).

If the solution is orange, consider it as being neutral.

If the solution is yellow (alkaline), titrate it with the hydrochloric acid solution (3.1) to an orange end-point.

If the solution is red (acid), titrate it with the sodium or potassium hydroxide solution (3.2) to an orange end-point.

NOTE — By agreement between the parties, another colour indicator can be used.