

Värvained. Lahustuvuse määramine orgaanilistes lahustites. Kaalanalüüsimeetod

Dyestuffs - Determination of solubility in organic solvents - Gravimetric method

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 7579:2000 sisaldab Euroopa standardi EN ISO 7579:1996 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 11.01.2000 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 7579:2000 consists of the English text of the European standard EN ISO 7579:1996.

This standard is ratified with the order of Estonian Centre for Standardisation dated 11.01.2000 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

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kaalanalüüs, katsed, lahustuvuskatsed, värvained, värvid

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Descriptors: Dyestuffs, solubility, testing.

English version

Dyestuffs

Determination of solubility in organic solvents
Gravimetric method
(ISO 7579:1990)

Colorants – Détermination de la solubilité
dans les solvants organiques – Méthode
gravimétrique (ISO 7579:1990)

Farbstoffe – Bestimmung der Löslichkeit
in organischen Lösemitteln – Gravime-
trisches Verfahren (ISO 7579:1990)

This European Standard was approved by CEN on 1995-03-23 and is identical to the ISO Standard as referred to.

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.

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 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 the United Kingdom.

CEN

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

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

Foreword

International Standard

ISO 7579:1990 Dyestuffs – Determination of solubility in organic solvents – Gravimetric method, which was prepared by ISO/TC 35 'Paints and varnishes' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 298 'Pigments and extenders' as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by March 1997 at the latest.

In accordance with the CEN/GENELEC 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 7579:1990 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative).

Introduction

Many dyestuffs, when present in excess, dissolve in solvents to give concentrations that are independent of the ratio of dyestuff to solvent (saturation concentrations). In these instances, the saturation concentration is defined as the solubility. However, some dyestuff/solvent systems do not show a definite saturation concentration and the dyestuff continues to dissolve in the solvent as the proportion of the dyestuff is increased. A graphical method for determining the solubility of these dyestuffs is presented in this International Standard.

1 Scope

This International Standard specifies a method for determining the solubility of dyestuffs in organic solvents. It is applicable to dyestuffs that do not change chemically under the influence of the solvent, are stable and are non-volatile under the specified drying conditions.

The method is suitable for concentrations between 1 g and 1 000 g of dyestuff per litre of solvent. It is not suitable for the determination of insoluble matter in a dyestuff.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 758:1976, *Liquid chemical products for industrial use — Determination of density at 20 °C*.

ISO 787-2:1981, *General methods of test for pigments and extenders — Part 2: Determination of matter volatile at 105 °C*.

ISO 842:1984, *Raw materials for paints and varnishes — Sampling*.

ISO 1625:1977, *Plastics — Aqueous dispersions of polymers and copolymers — Determination of residue at 105 °C*.

3 Definition

For the purposes of this International Standard, the following definition applies.

solubility: The maximum mass of a dyestuff that is soluble in a given volume of a solvent under specified conditions.

Solubility is expressed in grams per litre of solvent (see annex A).

No distinction is made between “true” solubility and “colloidal” solubility.

4 Principle

Different amounts of the dyestuff are each dispersed in a defined volume of a solvent at 23 °C. After mixing for 24 h, each dispersion is centrifuged and the solids content of the supernatant liquid is determined gravimetrically.

5 Solvent

The organic solvent for the dyestuff shall be completely volatile at 105 °C and the density of the solvent at 23 °C shall be known. The density of the solvent may be determined by the method described in ISO 758, but at a temperature of 23 °C instead of 20 °C. There shall be no chemical interaction between the dyestuff and the solvent.

As organic solvents are normally not chemically pure, the grade of purity (including the type and quantity of any major secondary constituents) shall be given in the test report.

6 Apparatus

Ordinary laboratory apparatus and glassware together with the following.