

Vee kvaliteet. Värvuse analüüs ja määramine

Water quality - Examination and determination of
colour

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 7887:1999 sisaldab Euroopa standardi EN ISO 7887:1994 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 12.12.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 7887:1999 consists of the English text of the European standard EN ISO 7887:1994.</p> <p>This document is endorsed on 12.12.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>Standard määrab kindlaks kolm meetodit vee värvuse analüüsiks. Meetodid hõlmavad näivvärvuse analüüsi visuaalsel vaatlusel, tegeliku värvuse analüüsi optiliste mõõteriistade kasutamisega ja analüüsi visuaalsel võrdlemisel heksakloroplatinaadi standardlahustega.</p>	<p>Scope:</p>
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ICS 13.060.60

Võtmesõnad: kvaliteet, määramine, testid, veetestid, vesi, värvus

ICS 13.060.40

Descriptors: Water quality, colour, testing, analysis.

English version

Water quality

**Examination and determination of colour
(ISO 7887:1994)**

Qualité de l'eau; examen et détermination
de la couleur (ISO 7887:1994)

Wasserbeschaffenheit; Untersuchung und
Bestimmung der Färbung (ISO 7887:1994)

This European Standard was approved by CEN on 1994-10-14 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 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 7887:1994 Water quality; examination and determination of colour, which was prepared by ISO/TC 147 'Water quality' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 230 'Water analysis' 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 April 1995 at the latest.

In accordance with the 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 United Kingdom.

Endorsement notice

The text of the International Standard ISO 7887:1994 was approved by CEN as a European Standard without any modification.

Introduction

Pure water observed by transmitted light through a depth of several metres exhibits a light blue colour which may be modified in the presence of pollutants to produce an infinite variety of colours. Natural waters are mostly coloured yellowish brown by particular components of iron, clay particles, or by humic matter (or coloured green due to a content of algae) and the observed colour may not be entirely due to completely soluble substances. For analytical purposes, however, it is the "true colour" of a sample which is of interest. The true colour is described as that due to dissolved substances (i.e. all materials that pass a 0,45 µm filter). Colour observed in the presence of undissolved suspended matter is described as "apparent colour". The inherent colour of water can be neglected in analytical practice.

The term colour, in its strict sense, describes the attribute of visual perception consisting of any combination of chromatic and achromatic content (see CIE Publication No. 17.4:1987, term No. 845-02-18). In this International Standard the term colour is used in a looser sense, for describing the absorption at specified wavelengths.

Section 1: General

1.1 Scope

This International Standard specifies three methods for the examination of colour.

Section 2 specifies a method for the examination of apparent colour by visually observing a water sample in a bottle. This gives only preliminary information, for example for use in field work. Only the apparent colour can be reported.

Section 3 specifies a method for the determination of the true colour of a water sample using optical apparatus and is applicable to raw and potable water and to industrial water of low colour. For interferences, see 3.3.

Section 4 specifies a method for the determination of the colour by visual comparison with hexachloroplatinate standard solutions and may be applied to raw and drinking water. For interferences, see 4.2.

Under certain circumstances, strongly coloured water samples need to be diluted before examination or determination.

When stating the result, it is absolutely necessary to refer to the applied method.

1.2 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 10523:1994, *Water quality — Determination of pH*.

CIE Publication No. 17.4:1987, *International lighting vocabulary*.

1.3 Definitions

For the purposes of this International Standard, the definitions given in CIE Publication No. 17.4, and the following, apply.

1.3.1 colour of water: Optical property that causes the changing of the spectral composition of transmitted visible light.

1.3.2 apparent colour of water: Colour due to dissolved substances and undissolved suspended matter; determined in the original water sample without filtration or centrifugation.

1.3.3 true colour of water: Colour due only to dissolved substances; determined after filtration of the water sample through a membrane filter of pore size 0,45 µm.