

**Clear liquids - Estimation of colour by the
Gardner colour scale - Part 2:
Spectrophotometric method**

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colour scale - Part 2: Spectrophotometric method

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 4630-2:2005 sisaldab Euroopa standardi EN ISO 4630-2:2004 ingliskeelset teksti.

Käesolev dokument on jõustatud 25.01.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 4630-2:2005 consists of the English text of the European standard EN ISO 4630-2:2004.

This document is endorsed on 25.01.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

Käsitlusala:

This part of ISO 4630 specifies a method for estimating, by means of the Gardner colour scale, the colour of clear, yellow/brown liquid products using colour-measuring instruments. The results might be invalid if other products are tested. The test uses the Gardner colour scale described in ISO 4630-1. The method is applicable to drying oils, varnishes and solutions of fatty acids, polymerized fatty acids, resins, tall oil, tall oil fatty acids, rosin and related products. The method described provides a more precise way of measuring Gardner colour than that described in ISO 4630-1. It is applicable to products having colours from Gardner 1 to Gardner 18. The Gardner scale is not applicable to products with colours lighter than 1 or darker than 18.

Scope:

This part of ISO 4630 specifies a method for estimating, by means of the Gardner colour scale, the colour of clear, yellow/brown liquid products using colour-measuring instruments. The results might be invalid if other products are tested. The test uses the Gardner colour scale described in ISO 4630-1. The method is applicable to drying oils, varnishes and solutions of fatty acids, polymerized fatty acids, resins, tall oil, tall oil fatty acids, rosin and related products. The method described provides a more precise way of measuring Gardner colour than that described in ISO 4630-1. It is applicable to products having colours from Gardner 1 to Gardner 18. The Gardner scale is not applicable to products with colours lighter than 1 or darker than 18.

ICS 87.060.20

Võtmesõnad:

English version

Clear liquids

Estimation of colour by the Gardner colour scale

Part 2: Spectrophotometric method

(ISO 4630-2:2004)

Liquides claires – Évaluation de la couleur au moyen de l'échelle Gardner – Partie 2: Méthode spectrophotométrique (ISO 4630-2:2004)

Klare Flüssigkeiten – Bestimmung der Farbe nach der Gardner-Farbskala – Teil 2: Spektralphotometrisches Verfahren (ISO 4630-2:2004)

This European Standard was approved by CEN on 2004-11-14.

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 Management Centre 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

European Committee for Standardization

Comité Européen de Normalisation

Europäisches Komitee für Normung

Management Centre: rue de Stassart 36, B-1050 Brussels

Foreword

International Standard

ISO 4630-2:2004 Clear liquids – Estimation of colour by the Gardner colour scale – Part 2: Spectrophotometric 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 139 'Paints and varnishes', the Secretariat of which is held by DIN, 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 May 2005 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 4630-2:2004 was approved by CEN as a European Standard without any modification.

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1 Scope

This part of ISO 4630 specifies a method for estimating, by means of the Gardner colour scale, the colour of clear, yellow/brown liquid products using colour-measuring instruments. The results might be invalid if other products are tested. The test uses the Gardner colour scale described in ISO 4630-1.

The method is applicable to drying oils, varnishes and solutions of fatty acids, polymerized fatty acids, resins, tall oil, tall oil fatty acids, rosin and related products.

The method described provides a more precise way of measuring Gardner colour than that described in ISO 4630-1. It is applicable to products having colours from Gardner 1 to Gardner 18. The Gardner scale is not applicable to products with colours lighter than 1 or darker than 18.

2 Normative references

The following referenced documents are indispensable for the application 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 4630-1, *Clear liquids — Estimation of colour by the Gardner colour scale — Part 1: Visual method*

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

CIE Publication No. 15.2, *Colorimetry*

3 Principle

The colour of a liquid sample is measured using an instrument capable of measuring transmitted colour and reporting in Gardner colours or in a colour system that can be converted into Gardner colours.

4 Apparatus and materials

4.1 Colour-measuring instrument, capable of measuring transmitted colour ($0^\circ/180^\circ$ geometry) and reporting the results in the Gardner colour scale described in ISO 4630-1. If such an instrument is not available, one may be used which is capable of measuring transmitted colour and reporting in tristimulus values or chromaticity coordinates using standard illuminant C and the 2° observer, described in CIE Publication No. 15.2.

4.2 Glass absorption cells, 10 mm path length, unless a different path length is specified by the instrument manufacturer.