

**Clear liquids - Estimation of colour by the  
platinum-cobalt scale - Part 1: Visual  
method**

Clear liquids - Estimation of colour by the platinum-cobalt scale - Part 1: Visual method

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 6271-1:2005 sisaldab Euroopa standardi EN ISO 6271-1:2004 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 25.01.2005 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 6271-1:2005 consists of the English text of the European standard EN ISO 6271-1:2004.</p> <p>This document is endorsed on 25.01.2005 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><b>Käsitlusala:</b></p> <p>This part of ISO 6271 specifies a method for estimating the colour, in Pt-Co units, of clear liquids. It is applicable to clear liquids having colour characteristics similar to those of the reference platinum-cobalt scale.</p>	<p><b>Scope:</b></p> <p>This part of ISO 6271 specifies a method for estimating the colour, in Pt-Co units, of clear liquids. It is applicable to clear liquids having colour characteristics similar to those of the reference platinum-cobalt scale.</p>
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Võtmesõnad:

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**English version**

**Clear liquids**

Estimation of colour by the platinum-cobalt scale

Part 1: Visual method

(ISO 6271-1:2004)

Liquides clairs – Évaluation de la couleur au moyen de l'échelle platine-cobalt – Partie 1: Méthode visuelle  
(ISO 6271-1:2004)

Klare Flüssigkeiten – Einstufung der Farbe nach der Platin-Cobalt-Skala – Teil 1: Visuelles Verfahren  
(ISO 6271-1:2004)

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

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**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 6271-1:2004 Clear liquids – Estimation of colour by the platinum-cobalt scale – Part 1: Visual 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 6271-1:2004 was approved by CEN as a European Standard without any modification.

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## Introduction

ISO 2211, *Liquid chemical products — Measurement of colour in Hazen units (platinum-cobalt scale)*, is not suitable for use in the paint industry.

ISO 6271-1 differs from ISO 2211 in respect to:

- preparation of the stock solution for colour matching (in one way only);
- checking of the stock solution;
- use of tubes with greater viewing depth to obtain a more distinct difference between successive colour standards;
- the single test procedure given is more accurate.

The term "platinum-cobalt colour" used here is preferred over the terms "Hazen colour" and "APHA colour".

## 1 Scope

This part of ISO 6271 specifies a method for estimating the colour, in Pt-Co units, of clear liquids.

It is applicable to clear liquids having colour characteristics similar to those of the reference platinum-cobalt scale.

## 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 3696, *Water for analytical laboratory use — Specification and test methods*

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

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **Pt-Co scale**

classification of the colour of a solution containing platinum, in the form of the hexachloroplatinate(IV) ion, and cobalt(II) chloride hexahydrate in specified concentrations

## 4 Principle

The colour of a sample of the product to be tested is compared with those of colour standards. The standard that most closely matches the colour of the sample is identified and the result is expressed in terms of Pt-Co units.

## 5 Reagents

During the test, use only reagents of recognized analytical grade and only water of at least grade 3 purity as defined in ISO 3696.

**5.1 Potassium hexachloroplatinate(IV),  $K_2PtCl_6$ .**

**5.2 Cobalt(II) chloride hexahydrate,  $CoCl_2 \cdot 6H_2O$ .**

**5.3 Hydrochloric acid, 38 % (by mass),  $\rho = 1,19$  g/ml.**