

## **Paints and varnishes - Determination of wet-scrub resistance and cleanability of coatings**

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 11998:2006 sisaldab Euroopa standardi EN ISO 11998:2006 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 30.08.2006 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 11998:2006 consists of the English text of the European standard EN ISO 11998:2006.</p> <p>This document is endorsed on 30.08.2006 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>The ability of coatings to withstand wear caused by repeated cleaning operations and to withstand penetration by soiling agents is an important consideration both from a practical point of view and when comparing and rating such coatings. This International Standard describes an accelerated method for the determination of wet-scrub resistance. With regard to the cleanability of coatings, only the method itself and not the soiling agents are specified.</p>	<p><b>Scope:</b></p> <p>The ability of coatings to withstand wear caused by repeated cleaning operations and to withstand penetration by soiling agents is an important consideration both from a practical point of view and when comparing and rating such coatings. This International Standard describes an accelerated method for the determination of wet-scrub resistance. With regard to the cleanability of coatings, only the method itself and not the soiling agents are specified.</p>
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ICS 87.040

**Võtmesõnad:** cleaning, coatings, determination, paints, scrubbing, test equipment, tests, varnishes, washing, wear resistance

English Version

Paints and varnishes - Determination of wet-scrub resistance  
and cleanability of coatings (ISO 11998:2006)

Peintures et vernis - Détermination de la résistance au  
frottement humide et de l'aptitude au nettoyage des  
revêtements (ISO 11998:2006)

Beschichtungsstoffe - Bestimmung der  
Nassabriebbeständigkeit und der Reinigungsfähigkeit von  
Beschichtungen (ISO 11998:2006)

This European Standard was approved by CEN on 7 July 2006.

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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 Central Secretariat has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## Foreword

This document (EN ISO 11998:2006) has been prepared by Technical Committee ISO/TC 35 "Paints and varnishes" in collaboration with Technical Committee CEN/TC 139 "Paints and varnishes", 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 January 2007, and conflicting national standards shall be withdrawn at the latest by January 2007.

This document supersedes EN ISO 11998:2001.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

## Endorsement notice

The text of ISO 11998:2006 has been approved by CEN as EN ISO 11998:2006 without any modifications.

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wet-scrub resistance and cleanability  
of coatings**

*Peintures et vernis — Détermination de la résistance au frottement  
humide et de l'aptitude au nettoyage des revêtements*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 11998 was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

This second edition cancels and replaces the first edition (ISO 11998:1998), which has been technically revised. The main changes are:

- the definitions for stroke length and scrub cycle have been changed and a new term scrub length has been introduced;
- the method for the determination of the dry-film density of the coating, specified in Annex A, has been replaced by a new method.



## Introduction

As noted in the Foreword, this International Standard is a revision of ISO 11998:1998. The use and application of the standard is now established globally, and improved procedures/equipment have been proposed. A joint CEN/ISO working group has agreed to undertake interlaboratory testing with a new type of abrasive pad (different from that specified in 6.5). It is anticipated that the results of the testing will be available by the end of 2006 and an early revision of the standard might be initiated.

# Paints and varnishes — Determination of wet-scrub resistance and cleanability of coatings

## 1 Scope

The ability of coatings to withstand wear caused by repeated cleaning operations and to withstand penetration by soiling agents is an important consideration both from a practical point of view and when comparing and rating such coatings. This International Standard describes an accelerated method for the determination of wet-scrub resistance. With regard to the cleanability of coatings, only the method itself and not the soiling agents are specified.

**NOTE** Since these properties depend not only on the quality of a coating but also on the substrate, the method of application, the drying conditions and other factors, the results obtained are not directly transferable to actual practice. In this standard the evaluation of the coating is based on a defined substrate, a fixed application method, specified drying conditions and a defined method of wet scrubbing.

## 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 1513, *Paints and varnishes — Examination and preparation of samples for testing*

ISO 3270, *Paints and varnishes and their raw materials — Temperatures and humidities for conditioning and testing*

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

#### **cleanability**

ability of a dry coating film to withstand penetration by soiling agents and to be freed from them through the cleaning process without removing more than a defined film thickness

### 3.2

#### **scrub cycle**

one reciprocal movement of the scrub pad over the scrub length in both directions

### 3.3

#### **scrub length**

stroke length plus the length of the pad