

Paints and varnishes - Coating materials and coating systems for exterior wood - Part 6: Exposure of wood coatings to artificial weathering using fluorescent UV lamps and water

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 927-6:2006 sisaldab Euroopa standardi EN 927-6:2006 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 20.09.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 927-6:2006 consists of the English text of the European standard EN 927-6:2006.</p> <p>This document is endorsed on 20.09.2006 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>Käsitlusala: This part of EN 927 specifies a method for determining the resistance of wood coatings to artificial weathering performed in an apparatus equipped with fluorescent UV lamps, condensation and water spray devices.</p>	<p>Scope: This part of EN 927 specifies a method for determining the resistance of wood coatings to artificial weathering performed in an apparatus equipped with fluorescent UV lamps, condensation and water spray devices.</p>
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ICS 87.040

Võtmesõnad:

ICS 87.040

English Version

Paints and varnishes - Coating materials and coating systems
for exterior wood - Part 6: Exposure of wood coatings to artificial
weathering using fluorescent UV lamps and water

Peintures et vernis - Produits de peinture et systèmes de
peinture pour bois en extérieur - Partie 6 : Vieillissement
artificiel des revêtements pour bois par exposition à des
lampes UV fluorescentes et à de l'eau

Beschichtungsstoffe - Beschichtungsstoffe und
Beschichtungssysteme für Holz im Außenbereich - Teil 6:
Künstliche Bewitterung von Holzbeschichtungen mit
fluoreszierenden UV-Lampen und Wasser

This European Standard was approved by CEN on 26 June 2006.

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, 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.



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Foreword

This document (EN 927-6:2006) has been prepared by 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 February 2007, and conflicting national standards shall be withdrawn at the latest by February 2007.

EN 927 consists of the following parts under the general title "*Paints and varnishes — Coating materials and coating systems for exterior wood*":

- *Part 1: Classification and selection;*
- *Part 2: Performance specification;*
- *Part 3: Natural weathering test;*
- *Part 5: Assessment of the liquid water permeability;*
- *Part 6: Exposure of wood coatings to artificial weathering using fluorescent UV lamps and water.*

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.

Introduction

Coatings from paints, varnishes and similar materials are weathered in a laboratory in order to simulate ageing processes which occur from natural weathering. Generally, a valid correlation between ageing during artificial and natural weathering cannot be expected due to a large number of influencing factors. Certain relationships can only be expected if the effect of the important parameters (spectral distribution of the irradiance in the photochemically relevant range, temperature of the specimen, type of wetting, wetting cycle relative humidity) on the coating is known. However, unlike natural weathering, testing in the laboratory is carried out taking into consideration a limited number of variables which can be controlled and therefore the results are more reproducible.

1 Scope

This part of EN 927 specifies a method for determining the resistance of wood coatings to artificial weathering performed in an apparatus equipped with fluorescent UV lamps, condensation and water spray devices.

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.

EN 927-1, *Paints and varnishes — Coating materials and coating systems for exterior wood — Part 1: Classification and selection*

EN ISO 2409, *Paints and varnishes — Cross-cut test (ISO 2409:1992)*

EN ISO 2808, *Paints and varnishes — Determination of film thickness (ISO 2808:1997)*

EN ISO 2813, *Paints and varnishes — Determination of specular gloss of non-metallic paint films at 20°, 60° and 85° (ISO 2813:1994, including Technical Corrigendum 1:1997)*

EN ISO 4628-1:2003, *Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 1: General introduction and designation system (ISO 4628-1:2003)*

EN ISO 4628-2, *Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 2: Assessment of degree of blistering (ISO 4628-2:2003)*

EN ISO 4628-4, *Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 4: Assessment of degree of cracking (ISO 4628-4:2003)*

EN ISO 4628-5, *Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 5: Assessment of degree of flaking (ISO 4628-5:2003)*

EN ISO 4628-6, *Paints and varnishes — Evaluation of degradation of paint coatings — Designation of intensity, quantity and size of common types of defect - Part 6: Rating of degree of chalking by tape method (ISO 4628-6:1990)*

prEN ISO 11507:2005, *Paints and varnishes — Exposure of coatings to artificial weathering — Exposure to fluorescent UV and water (ISO/DIS 11507:2005)*

ISO 554, *Standard atmospheres for conditioning and/or testing — Specifications*

ISO 7724-1, *Paints and varnishes — Colorimetry — Part 1: Principles*

ISO 7724-2, *Paints and varnishes — Colorimetry — Part 2: Colour measurement*

3 Principle

Artificial weathering of coatings using fluorescent UV lamps, condensation or water spray is carried out in order to produce a certain radiant exposure or mutually agreed total number of operation hours, based on a given degree of a change in a property or properties. The properties of the exposed coatings are compared with those of unexposed coatings, which are prepared from the same coating materials under identical conditions or with coatings whose degradation properties are known.