

Paints and varnishes - Laboratory method for determination of release of regulated dangerous substances from coatings in intermittent contact with water

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 16105:2023 sisaldab Euroopa standardi EN 16105:2023 ingliskeelset teksti.	This Estonian standard EVS-EN 16105:2023 consists of the English text of the European standard EN 16105:2023.
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English Version

Paints and varnishes - Laboratory method for
determination of release of regulated dangerous
substances from coatings in intermittent contact with
water

Peintures et vernis - Méthode de laboratoire pour la
détermination de la libération de substances
dangereuses réglementées provenant de revêtements
en contact avec l'eau par intermittence

Beschichtungsstoffe - Laborverfahren zur Bestimmung
der Freisetzung von Substanzen aus Beschichtungen in
intermittierendem Kontakt mit Wasser

This European Standard was approved by CEN on 25 December 2022.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European Foreword

This document (EN 16105:2023) has been prepared by Technical Committee CEN/TC 139 “Paints and Vanishes” 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of an identical text or by endorsement, at the latest by July 2023, and conflicting national standards shall be withdrawn at the latest by July 2023.

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

This document supersedes EN 16105:2011.

The main changes compared to the previous edition are as follows:

- the Scope has been amended;
- in 6.3.1 tolerances have been added;
- normative references have been updated.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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

Introduction

Leaching of substances from coatings into water needs to be quantified to enable an environmental risk assessment for the use of substances in coating materials. Substances can be leached from coatings, particularly by driving rain, and transferred into the environment.

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1 Scope

This document specifies a laboratory method to determine the leaching behaviour of substances from coatings into water over defined time intervals.

The release of substances from coatings under natural conditions cannot be determined with this method.

This method can be applied to renders, when condition (4) of the Scope of CEN/TS 16637-1 is fulfilled.

(4) It is assumed that intermittent contact with water (e.g. exposure to rainwater) is tested — by convention — as permanent contact. For some coatings, (e.g. some renders with organic binders according to EN 15824) in intermittent contact to water, physical and chemical properties might be altered in permanent contact with water. These products are not covered by the Technical Specification CEN/TS 16637-1 since the test method in CEN/TS 16637-2 is not appropriate for these construction products.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 23270, *Paints and varnishes and their raw materials - Temperatures and humidities for conditioning and testing (ISO 3270)*

EN ISO 15528, *Paints, varnishes and raw materials for paints and varnishes - Sampling (ISO 15528)*

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

substance

single chemical element or compound, or a complex structure of compounds, that is contained in the coating and can potentially be extracted from the coating via water contact

3.2

target substance

substance of interest which has to be defined

Note 1 to entry: One or more target substances may be defined, which shall be quantified in the merged eluates and for which results shall be given according to Clause 6. For example, biocides can be the target substances (see Annex B).