

Paints and varnishes - Coating materials and coating systems for exterior wood - Part 13: Assessment of resistance to impact of a coating on a wooden substrate

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

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English Version

**Paints and varnishes - Coating materials and coating systems for exterior wood - Part 13: Assessment of resistance to impact of a coating on a wooden substrate**

Peintures et vernis - Produits de peinture et systèmes de peinture pour le bois en extérieur - Partie 13 : Évaluation de la résistance au choc d'un revêtement sur un support en bois

Beschichtungsstoffe - Beschichtungsstoffe und Beschichtungssysteme für Holz im Außenbereich - Teil 13: Beurteilung der Schlagfestigkeit einer Beschichtung auf einem Holzsubstrat

This European Standard was approved by CEN on 28 July 2019.

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## European foreword

This document (EN 927-13:2019) 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of an identical text or by endorsement, at the latest by March 2020, and conflicting national standards shall be withdrawn at the latest by March 2020.

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 CEN/TS 16700:2014.

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## Introduction

During the use coated wood surfaces are exposed to various impacts. A suitable resistance of a coating on wood to impact is of importance to keep the substrate further protected with intact coating without cracks or flakes. The simple method described in this document provides quick information if a coating on wood is capable to withstand impacts without cracks or not. A similar method exists in ISO 4211-4 for furniture surfaces in interior use but in the present document the procedure is adopted and description of a carefully selected substrate is added to enable testing of coating materials and coating systems for exterior wood. The method should preferably be used on coatings that have not been exposed to weathering but it can also be applied after ageing of the coating or under different climatic conditions to gain additional experience.

The nature of the substrate will have a major effect on the results obtained in the test. Therefore, the use of any other substrate than the one specified should be clearly stated in the test report.

## 1 Scope

This document specifies a test method for assessing the resistance of a coating to impact on a defined and carefully selected wooden substrate for coatings on wood components in exterior use.

The method is preferably used on coatings that have not been exposed to weathering. The method is suitable for use either as a means of comparing different coating systems or as a quality control test to ensure that a specified performance level is being achieved or maintained.

## 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 927-3:2019, *Paints and varnishes — Coating materials and coating systems for exterior wood — Part 3: Natural weathering test*

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

## 3 Terms and definitions

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

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

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

### 3.1

#### **coating**

layer formed from a single or multiple application of a coating material to a substrate

[SOURCE: EN ISO 4618:2014, 2.50.1]

### 3.2

#### **impact resistance**

ability of a coating to resist deformation from a sudden blow without damage

### 3.3

#### **cracking**

rupturing of a dry film or coat

[SOURCE: EN ISO 4618:2014, 2.65, modified — Notes have not been included.]

### 3.4

#### **flaking**

detachment of small parts of a coating due to a loss of adhesion

[SOURCE: EN ISO 4618:2014, 2.114]