

**Paints and varnishes - Determination of scratch resistance - Part 1: Constant-loading method (ISO 1518-1:2011)**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 1518-1:2011 sisaldab Euroopa standardi EN ISO 1518-1:2011 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 30.06.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

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Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 1518-1:2011 consists of the English text of the European standard EN ISO 1518-1:2011.

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English Version

Paints and varnishes - Determination of scratch resistance - Part  
1: Constant-loading method (ISO 1518-1:2011)

Peintures et vernis - Détermination de la résistance à la  
rayure - Partie 1: Méthode à charge constante (ISO 1518-  
1:2011)

Beschichtungsstoffe - Ritzprüfung (ISO 1518-1:2011)

This European Standard was approved by CEN on 8 January 2011.

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## Foreword

This document (EN ISO 1518-1:2011) 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of an identical text or by endorsement, at the latest by December 2011, and conflicting national standards shall be withdrawn at the latest by December 2011.

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### Endorsement notice

The text of ISO 1518-1:2011 has been approved by CEN as a EN ISO 1518-1:2011 without any modification.

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# Paints and varnishes — Determination of scratch resistance —

## Part 1: Constant-loading method

### 1 Scope

This part of ISO 1518 specifies a test method for determining under defined conditions the resistance of a single coating or a multi-coat system of paint, varnish or related product to penetration by scratching with a scratch stylus loaded with a specified load. Penetration of the stylus is to the substrate, except in the case of a multi-coat system, in which case the stylus can penetrate either to the substrate or to an intermediate coat.

The method specified can be carried out

- a) either as a “pass/fail” test, by testing with a single specified load applied to the stylus to assess compliance with a particular specification;
- b) or by applying increasing loads to the stylus to determine the minimum load at which the coating is penetrated.

### 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 test samples*

ISO 1514, *Paints and varnishes — Standard panels for testing*

ISO 2808, *Paints and varnishes — Determination of film thickness*

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

### 3 Principle

A scratch stylus loaded with a specified load is drawn over a coating at a constant speed. The following test parameters are specified:

- the geometry of the stylus tip;
- the range within which the test load may lie and the increments by which it may be increased;
- the procedure by which the stylus is lowered on to the coating;
- the speed at which the stylus travels and the minimum length of the scratch.