



BSI Standards Publication

Paints and varnishes — Determination of mar resistance (ISO 12137:2011)

National foreword

This British Standard is the UK implementation of EN ISO 12137:2011. It supersedes BS EN ISO 12137-1:2006 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee STI/10, Test methods for paints.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Amendments issued since publication

Date	Text affected
31 December 2011	Implementation of CEN Correction Notice 9 November 2011: Corrected supersession information in EN Foreword

English Version

Paints and varnishes - Determination of mar resistance (ISO
12137:2011)

Peintures et vernis - Détermination de la résistance à la
détérioration (ISO 12137:2011)

Beschichtungsstoffe - Bestimmung der Beständigkeit
gegen Verkratzen (ISO 12137:2011)

This European Standard was approved by CEN on 14 October 2011.

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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 12137:2011) 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of an identical text or by endorsement, at the latest by April 2012, and conflicting national standards shall be withdrawn at the latest by April 2012.

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

This document supersedes EN ISO 12137-1:2006.

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Endorsement notice

The text of ISO 12137:2011 has been approved by CEN as a EN ISO 12137:2011 without any modification.

Paints and varnishes — Determination of mar resistance

1 Scope

This International Standard specifies a method for determining, using a curved (loop-shaped or ring-shaped) stylus, the mar resistance of a single coating of a paint, varnish or related product, or the upper layer of a multicoat system.

This test has been found to be useful in comparing the mar resistance of different coatings. It is most useful in providing relative ratings for a series of coated panels exhibiting significant differences in mar resistance.

This International Standard does not specify a method using a pointed stylus, two of which are specified in ISO 1518-1 and ISO 1518-2, respectively. The choice between the three methods will depend on the particular practical problem.

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 Terms and definitions

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

3.1

mar, n

blemish on the surface of a coating, extending over a particular area of the coating and visible due to the difference in the light-reflection properties of the area affected compared with the light-reflection properties of adjacent areas

4 Principle

The product or system under test is applied at uniform thickness to flat panels of uniform surface texture. After drying/curing, the mar resistance is determined by pushing the panels beneath a curved (loop-shaped or ring-shaped) stylus which is mounted so that it presses down on the surface of the test panel at an angle of 45°. The load on the test panel is increased in steps until the coating is marred.