



NSAI
Standards

Irish Standard
I.S. EN ISO 28199-1:2009

Paints and varnishes - Evaluation of properties of coating systems related to the application process - Part 1: Relevant vocabulary and preparation of test panels (ISO 28199-1:2009)

I.S. EN ISO 28199-1:2009

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SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

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Paints and varnishes - Evaluation of properties of coating systems related to the application process - Part 1: Relevant vocabulary and preparation of test panels - Technical Corrigendum 1 (ISO 28199-1:2009/Cor 1:2009)

Peintures et vernis - Évaluation des propriétés des systèmes de revêtement liées au mode d'application - Partie 1: Vocabulaire pertinent et préparation des panneaux d'essai - Rectificatif technique 1 (ISO 28199-1:2009/Cor 1:2009)

Beschichtungsstoffe - Beurteilung applikationsbedingter Eigenschaften von Beschichtungssystemen - Teil 1: Begriffe und Vorbereitung der Probenplatten (ISO 28199-1:2009/Cor 1:2009)

This corrigendum becomes effective on 15 December 2009 for incorporation in the three official language versions of the EN.

Ce corrigendum prendra effet le 15 décembre 2009 pour incorporation dans les trois versions linguistiques officielles de la EN.

Die Berichtigung tritt am 15. Dezember 2009 zur Einarbeitung in die drei offiziellen Sprachfassungen der EN in Kraft.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN ISO 28199-1:2009/AC:2009) 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.

Endorsement notice

The text of ISO 28199-1:2009/Cor 1:2009 has been approved by CEN as a EN ISO 28199-1:2009/AC:2009 without any modification.

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I.S. EN ISO 28199-1:2009
INTERNATIONAL STANDARD ISO 28199-1:2009
TECHNICAL CORRIGENDUM 1

Published 2009-12-15

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Paints and varnishes — Evaluation of properties of coating systems related to the application process —

Part 1: Relevant vocabulary and preparation of test panels

TECHNICAL CORRIGENDUM 1

Peintures et vernis — Évaluation des propriétés des systèmes de revêtement liées au mode d'application —

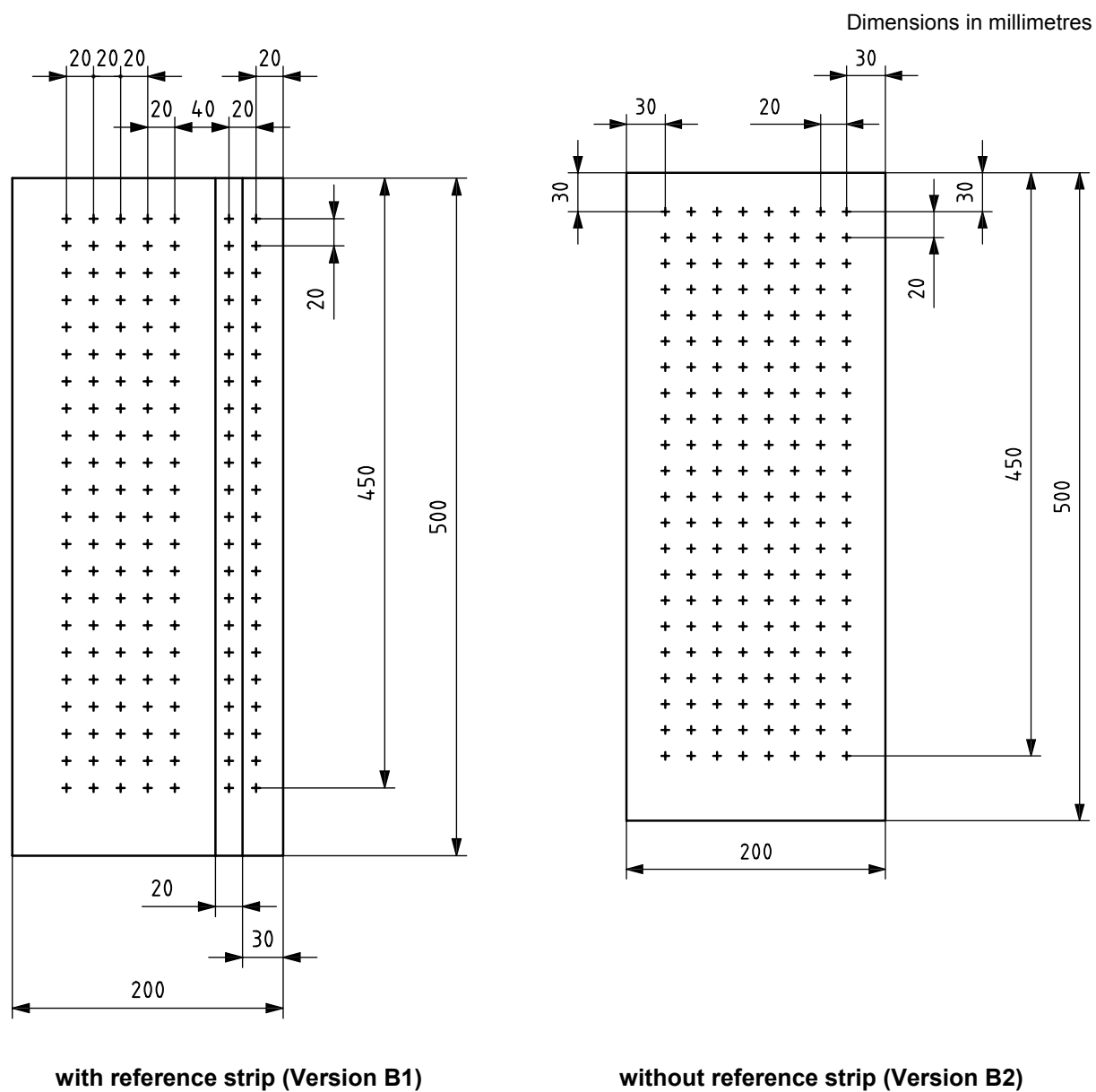
Partie 1: Vocabulaire pertinent et préparation des panneaux d'essai

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to ISO 28199-1:2009 was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

Page 13

In Figure 6, the two halves (“with reference strip” and “without reference strip”) of the figure have been incorrectly inverted. Replace the figure, therefore, by the following, corrected, figure.



Key

+ measuring point

Figure 6 — Measurement pattern for Version B

I.S. EN ISO 28199-1:2009

EUROPEAN STANDARD

EN ISO 28199-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2009

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English Version

Paints and varnishes - Evaluation of properties of coating systems related to the application process - Part 1: Relevant vocabulary and preparation of test panels (ISO 28199-1:2009)

Peintures et vernis - Évaluation des propriétés des systèmes de revêtement liées au mode d'application -
Partie 1: Vocabulaire pertinent et préparation des panneaux d'essai (ISO 28199-1:2009)

Beschichtungsstoffe - Beurteilung applikationsbedingter Eigenschaften von Beschichtungssystemen - Teil 1:
Begriffe und Vorbereitung der Probenplatten (ISO 28199-1:2009)

This European Standard was approved by CEN on 21 May 2009.

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 CEN Management Centre or to any CEN member.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN ISO 28199-1:2009) 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 March 2010, and conflicting national standards shall be withdrawn at the latest by March 2010.

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**INTERNATIONAL
STANDARD**

**ISO
28199-1**

First edition
2009-09-01

**Paints and varnishes — Evaluation of
properties of coating systems related to
the application process —**

**Part 1:
Relevant vocabulary and preparation of
test panels**

*Peintures et vernis — Évaluation des propriétés des systèmes de
revêtement liées au mode d'application —*

Partie 1: Vocabulaire pertinent et préparation des panneaux d'essai



Reference number
ISO 28199-1:2009(E)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

ISO 28199-1 was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

ISO 28199 consists of the following parts, under the general title *Paints and varnishes — Evaluation of properties of coating systems related to the application process*:

- *Part 1: Relevant vocabulary and preparation of test panels*
- *Part 2: Colour stability, process hiding power, re-dissolving, overspray absorption, wetting, surface texture and mottling*
- *Part 3: Visual assessment of sagging, formation of bubbles, pinholing and hiding power*

Introduction

In many areas (e.g. car manufacture, industrial coatings, coatings for plastics) the coating materials used are adapted to the specific application equipment and technologies of the particular user. A coating material is, therefore, to be understood as a semi-manufactured product that only receives its final form in combination with the specific application conditions. The adaptation to the application conditions is therefore decisive for the quality of the coated product.

The test methods specified in ISO 28199 are based on studies by a Working Group of the European Council for Automotive R&D (EUCAR).

They may be used for evaluation of coating materials in research, development and production with regard to their suitability and safety for industrial processes, and error analysis. The properties of coating materials and coatings to be evaluated depend on the film thickness, so a coating system of increasing thickness is applied to a test panel under defined conditions.

The following characteristics are measured (in this part of ISO 28199):

- film thickness in accordance with ISO 2808;
- surface texture;
- colour in accordance with ISO 7724 (all parts).

In combination with visual assessment, the following properties are determined:

- colour stability, process hiding power, re-dissolving, overspray absorption, wetting, surface texture and mottling (ISO 28199-2);
- tendency toward sagging, formation of bubbles, pinholing and hiding power (ISO 28199-3).

The International Organization for Standardization (ISO) draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent concerning the locally related measurements used in Version A in Clauses 8 and 9.

ISO takes no position concerning the evidence, validity and scope of this patent right.

The holder of this patent right has assured ISO that he is willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with ISO. Information may be obtained from:

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I.S. EN ISO 28199-1:2009

Paints and varnishes — Evaluation of properties of coating systems related to the application process —

Part 1: Relevant vocabulary and preparation of test panels

1 Scope

This part of ISO 28199 defines terms relating to the evaluation of coating materials in research, development and production with regard to their suitability and safety for industrial processes and error analysis.

This part of ISO 28199 specifies methods for the preparation of test panels and the subsequent measurement of film thickness, colour and surface texture.

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 samples for testing*

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

ISO 3270, *Paints and varnishes and their raw materials — Temperatures and humidities for conditioning and testing*

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

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

ISO 7724-3, *Paints and varnishes — Colorimetry — Part 3: Calculation of colour differences*

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

ISO 28199-2, *Paints and varnishes — Evaluation of properties of coating systems related to the application process — Part 2: Colour stability, process hiding power, re-dissolving, overspray absorption, wetting, surface texture and mottling*

ISO 28199-3, *Paints and varnishes — Evaluation of properties of coating systems related to the application process — Part 3: Visual assessment of sagging, formation of bubbles, pinholing and hiding power*

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