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ICS 87.040

Will supersede EN ISO 2409:2007

English Version

## Paints and varnishes - Cross-cut test (ISO/DIS 2409:2010)

Peintures et vernis - Essai de quadrillage (ISO/DIS  
2409:2010)

Beschichtungsstoffe - Gitterschnittprüfung (ISO/DIS  
2409:2010)

This draft European Standard is submitted to CEN members for parallel enquiry. It has been drawn up by the Technical Committee CEN/TC 139.

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## Foreword

This document (prEN ISO 2409:2010) 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 document is currently submitted to the parallel Enquiry.

This document will supersede EN ISO 2409:2007.

### Endorsement notice

The text of ISO/DIS 2409:2010 has been approved by CEN as a prEN ISO 2409:2010 without any modification.

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## DRAFT INTERNATIONAL STANDARD ISO/DIS 2409

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

# Paints and varnishes — Cross-cut test

*Peintures et vernis — Essai de quadrillage*

[Revision of third edition (ISO 2409:2007)]

ICS 87.040

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### ISO/CEN PARALLEL PROCESSING

This draft has been developed within the International Organization for Standardization (ISO), and processed under the **ISO-lead** mode of collaboration as defined in the Vienna Agreement.

This draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel five-month enquiry.

Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month approval vote in ISO and formal vote in CEN.

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## ISO/DIS 2409

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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.

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

ISO 2409 was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

This fourth edition cancels and replaces the third edition (ISO 2409:2006) which has been technically revised. The main changes are:

- a) the description of suitable methods for removal of loose paint are transferred to an informative annex as examples and the adhesive strength of the tape is not specified any more;
- b) the original single-blade cutting tool used for cross-cut tests is re-introduced;
- c) a specification for the cutting tool used in automated cross-cut apparatus is added;
- d) the pictorial standard for classification 2 is corrected to the original picture;
- e) examples for coatings on plastics are added to the specification of spacing of cuts;
- f) a designation code is introduced;
- g) the supplementary test conditions are integrated in the test report;
- h) a note is added that the apparatus (manual or motor-driven apparatus) and the variation of the cutting tool used has an influence on the test result.

# Paints and varnishes — Cross-cut test

## 1 Scope

This International Standard specifies a test method for assessing the resistance of paint coatings to separation from substrates when a right-angle lattice pattern is cut into the coating, penetrating through to the substrate. The property measured by this empirical test procedure depends, among other factors, on the adhesion of the coating to either the preceding coat or the substrate. This procedure is not to be regarded, however, as a means of measuring adhesion.

Where a measurement of adhesion is required, attention is drawn to the method described in ISO 4624.

NOTE 1 Although the test is primarily intended for use in the laboratory, the test is also suitable for field testing.

The method described may be applied either as a pass/fail test or, where circumstances are appropriate, as a six-step classification test. When applied to a multi-coat system, assessment of the resistance to separation of individual layers of the coating from each other may be made.

The test may be carried out on finished objects and/or on specially prepared test specimens.

Although the method is applicable to paint on hard (e.g. metal) and soft (e.g. wood and plaster) substrates, these different substrates need a different test procedure (see Clause 6).

The method is not suitable for coatings of total thickness greater than 250 µm or for textured coatings.

NOTE 2 The method, when applied to coatings designed to give a rough patterned surface, will give results which will show too much variation (see also ISO 16276-2).

## 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 1514, *Paints and varnishes — Standard panels 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 15528, *Paints, varnishes and raw materials for paints and varnishes — Sampling*

ISO 13076, *Paints and varnishes — Lightning and procedure for visual assessments*