INTERNATIONAL STANDARD

ISO 16925

Second edition
2021-12

Paints and varnishes — Determination of the resistance of coatings to pressure water-jetting

Peintures et vernis — Détermination de la résistance des revêtements à un jet d'eau sous pression

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Reference number
ISO 16925:2021(E)

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 139, *Paints and varnishes*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 16925:2014), which has been technically revised.

The main changes are as follows:

— the definitions “fracture strength”, “adhesion” and “cohesion” have been deleted from Clause 3 because they are not used in this document;

— in 5.1 and in A.2.4 the data for the adjustment of the mass flow rate have been updated;

— in 8.2 and in the test report the agreement of the mass flow rate has been deleted because it is given by the test method and need not to be agreed;

— the volumetric flow rate has been changed to mass flow rate in several places;

— the normative references have been updated and the text has been editorially revised.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Paints and varnishes — Determination of the resistance of coatings to pressure water-jetting

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1 Scope

This document specifies a test method for the evaluation of the resistance of coatings to pressure water-jetting. The test method simulates the effects pressure water-jetting has on a coating.

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.

ISO 1513, *Paints and varnishes — Examination and preparation of test samples*

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

ISO 4618, *Paints and varnishes — Terms and definitions*

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

ISO 17872, *Paints and varnishes — Guidelines for the introduction of scribe marks through coatings on metallic panels for corrosion testing*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4618 apply.

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Principle

The resistance of a coated test specimen to the loss of adhesive strength is tested by means of defined pressure water-jetting.

The extent of the damage of the test specimen primarily depends on, besides the adhesive strength, the space between nozzle and test piece, the mass flow rate, the test time, the geometry of the nozzle, the impact area, the angle of impact, and the water temperature of the jet, as well as the cutting and scribing tool.

The evaluation is carried out by means of a visual comparison of pictures, in which characteristic values are related to the peeled-off areas.

The parting line (plane) of the peeling shall be indicated in the test report (e.g. substrate/priming coat).

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