



NSAI
Standards

Irish Standard
I.S. EN ISO 22970:2020

Paints and varnishes - Test method for evaluation of adhesion of elastic adhesives on coatings by peel test, peel strength test and tensile lap-shear strength test with additional stress by condensation test or cataplasm storage (ISO 22970:2019)

I.S. EN ISO 22970:2020

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Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN ISO 22970:2020 is the adopted Irish version of the European Document EN ISO 22970:2020, Paints and varnishes - Test method for evaluation of adhesion of elastic adhesives on coatings by peel test, peel strength test and tensile lap-shear strength test with additional stress by condensation test or cataplasma storage (ISO 22970:2019)

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EUROPEAN STANDARD

EN ISO 22970

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2020

ICS 87.040

English Version

**Paints and varnishes - Test method for evaluation of
adhesion of elastic adhesives on coatings by peel test, peel
strength test and tensile lap-shear strength test with
additional stress by condensation test or cataplasma
storage (ISO 22970:2019)**

Peintures et vernis - Évaluation de l'adhérence des
adhésifs élastiques sur les produits de peinture en
examinant l'adhérence, la résistance au pelage et la
résistance à la traction et le cisaillement en
combinaison avec l'exposition à l'eau de condensation
ou au cataplasme (ISO 22970:2019)

Beschichtungsstoffe - Prüfverfahren zur Beurteilung
der Haftfestigkeit von elastischen Klebstoffen auf
Beschichtungen durch Prüfen der Schälhaftung,
Schälfestigkeit und Zugscherfestigkeit mit zusätzlicher
Beanspruchung durch Kondenswasserprüfung oder
Kataplasma Lagerung (ISO 22970:2019)

This European Standard was approved by CEN on 30 November 2020.

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN ISO 22970:2020 (E)

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European foreword

The text of ISO 22970:2019 has been prepared by Technical Committee ISO/TC 35 "Paints and varnishes" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 22970:2020 by 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 June 2021, and conflicting national standards shall be withdrawn at the latest by June 2021.

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

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Endorsement notice

The text of ISO 22970:2019 has been approved by CEN as EN ISO 22970:2020 without any modification.

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INTERNATIONAL STANDARD

ISO
22970

First edition
2019-05

Paints and varnishes — Test method for evaluation of adhesion of elastic adhesives on coatings by peel test, peel strength test and tensile lap- shear strength test with additional stress by condensation test or cataplasma storage

*Peintures et vernis — Évaluation de l'adhérence des adhésifs
élastiques sur les produits de peinture en examinant l'adhérence, la
résistance au pelage et la résistance à la traction et le cisaillement
en combinaison avec l'exposition à l'eau de condensation ou au
cataplasme*



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ISO 22970:2019(E)

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

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.

Paints and varnishes — Test method for evaluation of adhesion of elastic adhesives on coatings by peel test, peel strength test and tensile lap-shear strength test with additional stress by condensation test or cataplasma storage

1 Scope

This document specifies three methods for testing the peel adhesion, peel strength and tensile lap-shear strength in order to evaluate the adhesive bond as well as the type, location and structure of failures of elastic adhesives on coatings. These methods are used, for example, for testing the assembly with respect to the bond of panes or built-on parts, such as plastic covers, spoilers, instrument panel covers, headlights, with coatings for automobile construction. The two methods of climatic exposure of specimens described herein are the condensation test and cataplasma storage.

This document does not specify requirements for adhesives and coatings.

NOTE The peel strength test (method B) for rigid car body construction adhesives is described in ISO 8510-2. The tensile lap-shear strength test (method C) for rigid car body construction adhesives is described in EN 1465. Testing of rigid car body construction adhesives is generally conducted on small joint thicknesses, i.e. <1 mm.

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

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

ISO 6270-2, *Paints and varnishes — Determination of resistance to humidity — Part 2: Condensation (incubator exposure with heated water reservoir)*

ISO 10365, *Adhesives — Designation of main failure patterns*

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

DIN 55997, *Solvents for paints and varnishes — Deionized water — Requirements and methods of test*

3 Terms and definitions

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

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

- ISO Online browsing platform: available at <https://www.iso.org/obp>
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