

MITTEPURUSTAVAD KATSED. PENETRANTKATSE. OSA
2: PENETRANTKATSEAINETE TESTIMINE

Non-destructive testing - Penetrant testing - Part 2:
Testing of penetrant materials (ISO 3452-2:2021)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 3452-2:2021 sisaldab Euroopa standardi EN ISO 3452-2:2021 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 3452-2:2021 consists of the English text of the European standard EN ISO 3452-2:2021.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
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ICS 19.100

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EUROPEAN STANDARD

EN ISO 3452-2

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English Version

Non-destructive testing - Penetrant testing - Part 2: Testing of penetrant materials (ISO 3452-2:2021)

Essais non destructifs - Examen par ressuage - Partie 2:
Essai des produits de ressuage (ISO 3452-2:2021)

Zerstörungsfreie Prüfung - Eindringprüfung - Teil 2:
Prüfung von Eindringmitteln (ISO 3452-2:2021)

This European Standard was approved by CEN on 16 May 2021.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

European foreword

This document (EN ISO 3452-2:2021) has been prepared by Technical Committee ISO/TC 135 "Non-destructive testing" in collaboration with Technical Committee CEN/TC 138 "Non-destructive testing" the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by December 2021, and conflicting national standards shall be withdrawn at the latest by December 2021.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.

This document supersedes EN ISO 3452-2:2013.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 3452-2:2021 has been approved by CEN as EN ISO 3452-2:2021 without any modification.

Contents

	Page
Foreword	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Classification	2
4.1 Testing products.....	2
4.2 Sensitivity levels.....	2
4.2.1 General.....	2
4.2.2 Penetrant baseline sensitivity.....	2
4.2.3 Product family sensitivity.....	2
4.2.4 Fluorescent systems.....	2
4.2.5 Colour contrast systems.....	3
4.2.6 Dual-purpose product family.....	3
5 Testing of penetrant materials	3
5.1 Personnel.....	3
5.2 Testing facilities.....	3
5.2.1 Type testing.....	3
5.2.2 Batch testing.....	3
5.2.3 Process and control testing.....	3
5.3 Reporting.....	3
5.3.1 Type testing.....	3
5.3.2 Batch testing.....	4
5.4 Tests.....	4
5.4.1 Sensitivity test.....	4
5.4.2 Penetrants.....	4
5.4.3 Excess penetrant removers (excluding method A).....	4
5.4.4 Developers.....	5
5.4.5 Batch tests for spray cans.....	5
6 Test methods and requirements	5
6.1 Appearance.....	5
6.2 Penetrant system sensitivity.....	6
6.2.1 Fluorescent penetrants (type I).....	6
6.2.2 Colour contrast penetrants (type II).....	9
6.3 Density.....	10
6.3.1 Test method.....	10
6.3.2 Requirements.....	10
6.4 Viscosity.....	10
6.4.1 Test method.....	10
6.4.2 Requirements.....	10
6.5 Flashpoint.....	10
6.5.1 Test method.....	10
6.5.2 Requirements.....	11
6.6 Washability (method A penetrants).....	11
6.7 Fluorescent brightness.....	11
6.7.1 Test method.....	11
6.7.2 Requirements.....	11
6.8 UV stability.....	11
6.8.1 Test method.....	11
6.8.2 Requirements.....	11
6.9 Thermal stability of fluorescent brightness.....	12
6.9.1 Test method.....	12
6.9.2 Requirements.....	12

6.10	Water tolerance	12
6.10.1	Test method	12
6.10.2	Requirements	13
6.11	Corrosive properties	13
6.11.1	General	13
6.11.2	Type testing	13
6.11.3	Batch testing	16
6.12	Content of sulfur and halogens (for products designated low in sulfur and halogens)	16
6.12.1	Test method	16
6.12.2	Requirements	16
6.13	Residue on evaporation/solid content	17
6.13.1	Solvent removers	17
6.13.2	Form d and e developers	17
6.14	Penetrant tolerance	17
6.14.1	Lipophilic emulsifier (method B)	17
6.14.2	Hydrophilic emulsifier (method D)	17
6.15	Developer performance	17
6.16	Re-dispersability	17
6.16.1	Water-suspendable developers	17
6.16.2	Solvent based developers (non-aqueous)	17
6.17	Density of carrier liquid	18
6.17.1	Test method	18
6.17.2	Requirements	18
6.18	Product performance (pressurized containers)	18
6.19	Particle size distribution	18
6.20	Water content	18
6.20.1	Test method	18
6.20.2	Requirements	18
7	Packaging and labelling	18
Annex A	(normative) Comparison of fluorescent brightness	19
Annex B	(normative) Equipment for determination of the visibility of fluorescent indications	21
Annex C	(informative) List of reference materials	22
Bibliography	24

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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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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 135, *Non-destructive testing*, Subcommittee SC 2, *Surface methods*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 138, *Non-destructive testing*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 3452-2:2013), which has been technically revised.

The main changes compared to the previous edition are as follows:

- normative references updated;
- [Tables 1, 4, 8, 9](#) corrected;
- [4.2](#) modified;
- [5.1](#) modified;
- [6.6](#) revised;
- former Annex B deleted;
- editorial changes made.

A list of all parts in the ISO 3452 series can be found on the ISO website.

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.

Non-destructive testing — Penetrant testing —

Part 2: Testing of penetrant materials

SAFETY PRECAUTIONS — The materials required by this document include chemicals which may be harmful, flammable and/or volatile. All necessary precautions shall be observed, taking into account all relevant international, national and local regulations pertaining to health and safety, environmental requirements, etc.

1 Scope

This document specifies the technical requirements and test procedures for penetrant materials for their type testing and batch testing. This document covers the temperature range from 10 °C to 50 °C. Additional tests in ISO 3452-5 or ISO 3452-6 can be required outside this range.

On-site control tests and methods are detailed in ISO 3452-1.

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 3059, *Non-destructive testing — Penetrant testing and magnetic particle testing — Viewing conditions*

ISO 3452-1, *Non-destructive testing — Penetrant testing — Part 1: General principles*

ISO 3452-3, *Non-destructive testing — Penetrant testing — Part 3: Reference test blocks*

ISO 12706, *Non-destructive testing — Penetrant testing — Vocabulary*

ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 12706 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>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1 batch

quantity of material manufactured in one production having uniform properties throughout and with a unique identifying number or mark

3.2 candidate

sample of the testing product submitted for evaluation in accordance with this document