

SLOVENSKI STANDARD SIST EN ISO 3452-2:2021

01-september-2021

Nadomešča:

SIST EN ISO 3452-2:2014

Neporušitvene preiskave - Pregled s penetranti - 2. del: Preiskava penetrantskih snovi (ISO 3452-2:2021)

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

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

(standards.iteh.ai)

Essais non destructifs - Examen par ressuage 3452-2:2021) https://standards.iteh.ai/catalog/standards/sist/1d101992-83ab-47c7-876b-5555c59633ab/sist-en-iso-3452-2-2021

Ta slovenski standard je istoveten z: EN ISO 3452-2:2021

ICS:

19.100 Neporušitveno preskušanje Non-destructive testing

SIST EN ISO 3452-2:2021 en,fr,de

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 3452-2:2021 https://standards.iteh.ai/catalog/standards/sist/1d101992-83ab-47c7-876b-5555c59633ab/sist-en-iso-3452-2-2021 EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM **EN ISO 3452-2**

June 2021

ICS 19.100

Supersedes EN ISO 3452-2:2013

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.

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-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.

https://standards.iteh.ai/catalog/standards/sist/1d101992-83ab-47c7-876b-5555c59633ab/sist-en-iso-3452-2-2021



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

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

EN ISO 3452-2:2021 (E)

| Contents | Page |
|-------------------|------|
| | 2 |
| European foreword | 3 |

iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN ISO 3452-2:2021</u> https://standards.iteh.ai/catalog/standards/sist/1d101992-83ab-47c7-876b-5555c59633ab/sist-en-iso-3452-2-2021

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.

iTeh STANDARD PREVIEW Endorsement notice (standards.iteh.ai)

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

https://standards.iteh.ai/catalog/standards/sist/1d101992-83ab-47c7-876b-5555c59633ab/sist-en-iso-3452-2-2021

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 3452-2:2021 https://standards.iteh.ai/catalog/standards/sist/1d101992-83ab-47c7-876b-5555c59633ab/sist-en-iso-3452-2-2021

INTERNATIONAL STANDARD

ISO 3452-2

Fourth edition 2021-05

Non-destructive testing — Penetrant testing —

Part 2: **Testing of penetrant materials**

Essais non destructifs — Examen par ressuage —

iTeh STPartie 2: Essai des produits de ressuage (standards.iteh.ai)

<u>SIST EN ISO 3452-2:2021</u> https://standards.iteh.ai/catalog/standards/sist/1d101992-83ab-47c7-876b-5555c59633ab/sist-en-iso-3452-2-2021



ISO 3452-2:2021(E)

iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN ISO 3452-2:2021</u> https://standards.iteh.ai/catalog/standards/sist/1d101992-83ab-47c7-876b-5555c59633ab/sist-en-iso-3452-2-2021



COPYRIGHT PROTECTED DOCUMENT

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

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

| Co | Contents | | | |
|------|----------|--|----|--|
| Fore | eword | | v | |
| 1 | Scop | e | 1 | |
| 2 | Norr | native references | 1 | |
| 3 | | ns and definitions | | |
| | | | | |
| 4 | | sification | | |
| | 4.1 | Testing products | | |
| | 4.2 | Sensitivity levels 4.2.1 General | | |
| | | 4.2.2 Penetrant baseline sensitivity | | |
| | | 4.2.3 Product family sensitivity | | |
| | | 4.2.4 Fluorescent systems | | |
| | | 4.2.5 Colour contrast systems | | |
| | | 4.2.6 Dual-purpose product family | | |
| 5 | Tocti | ing of penetrant materials | | |
| 3 | 5.1 | Personnel Person | | |
| | 5.2 | Testing facilities | | |
| | 5.2 | 5.2.1 Type testing | | |
| | | 5.2.2 Batch testing | | |
| | | 5.2.3 Process and control testing | 3 | |
| | 5.3 | 5.2.3 Process and control testing | 3 | |
| | | 5.3.1 Type testing 5.3.2 Batch testing and ards.iteh.ai) | 3 | |
| | | 5.3.2 Batch testing and ards. Iten. al) | 4 | |
| | 5.4 | Tests | | |
| | | 5.4.1 Sensitivity test <u>SIST_EN_ISO_3452-2.2021</u> | | |
| | | 5.4.2 https: Penetrants h.ai/catalog/standards/sist/1d101992-83ab-47c7-876b | 4 | |
| | | 5.4.3 Excess penetrant removers (excluding method A) | | |
| | | 5.4.4 Developers | | |
| | | 5.4.5 Batch tests for spray cans | | |
| 6 | Test | methods and requirements | | |
| | 6.1 | Appearance | | |
| | 6.2 | Penetrant system sensitivity | | |
| | | 6.2.1 Fluorescent penetrants (type I) | | |
| | 6.0 | 6.2.2 Colour contrast penetrants (type II) | | |
| | 6.3 | Density | | |
| | | 6.3.1 Test method | | |
| | 6.4 | Viscosity | | |
| | 0.4 | 6.4.1 Test method | | |
| | | 6.4.2 Requirements | | |
| | 6.5 | Flashpoint | | |
| | | 6.5.1 Test method | | |
| | | 6.5.2 Requirements | | |
| | 6.6 | Washability (method A penetrants) | | |
| | 6.7 | Fluorescent brightness | 11 | |
| | | 6.7.1 Test method | | |
| | | 6.7.2 Requirements | | |
| | 6.8 | UV stability | | |
| | | 6.8.1 Test method | | |
| | | 6.8.2 Requirements | | |
| | 6.9 | Thermal stability of fluorescent brightness | | |
| | | 6.9.1 Test method | | |
| | | 6.9.2 Requirements | 12 | |

ISO 3452-2:2021(E)

| | 6.10 | Water tolerance | | |
|---------|--|---|----|--|
| | | 6.10.1 Test method | | |
| | | 6.10.2 Requirements | | |
| | 6.11 | Corrosive properties | | |
| | | 6.11.1 General | | |
| | | 6.11.2 Type testing | | |
| | | 6.11.3 Batch testing | | |
| | 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 | | |
| | 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 | | |
| | 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 | | |
| | | 6.17.1 Test method | 18 | |
| | | 6.17.2 Requirements | 18 | |
| | 6.18 | Product performance (pressurized containers) | 18 | |
| | 6.19 | Particle size distribution A. | 18 | |
| | 6.20 | Water content | 18 | |
| | | 6.20.1 Test method (Standards.iteh.ai) | 18 | |
| | | 6.20.2 Requirements | 18 | |
| 7 | Packa | ging and labelling <u>SIST EN ISO 3452-2:2021</u> | 18 | |
| Anno | A (non | https://standards.iteh.ai/catalog/standards/sist/1d101992-83ab-47c7-876b- | 10 | |
| | | | | |
| | - | | | |
| Annex | 6.17.1 Test method 18 6.17.2 Requirements 18 6.18 Product performance (pressurized containers) 18 6.19 Particle size distribution TANDARD PREVIEW 18 6.20 Water content 18 6.20.1 Test method (Standards.iteh.ai) 18 | | | |
| Bibliog | libliography | | | |

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).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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. (Standards.iteh.ai)

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;
- <u>Tables 1</u>, <u>4</u>, <u>8</u>, <u>9</u> corrected;
- 4.2 modified;
- <u>5.1</u> modified;
- <u>6.6</u> 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.

iTeh STANDARD PREVIEW (standards.iteh.ai)

5555c59633ab/sist-en-iso-3452-2-2021

SIST EN ISO 3452-2:2021 https://standards.iteh.ai/catalog/standards/sist/1d101992-83ab-47c7-876b-