SLOVENSKI STANDARD
SIST EN ISO 15708-2:2019

01-julij-2019

Nadomešča:
SIST EN 16016-2:2012

Neporušitvene preiskave - Sevalne metode za računalniško tomografijo - 2. del: Načela, oprema in vzorci (ISO 15708-2:2017)

Non-destructive testing - Radiation methods for Computed tomography - Part 2: Principles, equipment and samples (ISO 15708-2:2017)

Zerstörungsfreie Prüfung - Durchstrahlungsverfahren für Computertomografie - Teil 2: Grundlagen, Geräte und Proben (ISO 15708-2:2017)

Essais non destructifs - Méthodes par rayonnements pour la tomographie informatisée - Partie 2: Principes, équipements et échantillons (ISO 15708-2:2017)

Ta slovenski standard je istoveten z: **EN ISO 15708-2:2019**

ICS:

19.100	Neporušitveno preskušanje	Non-destructive testing

SIST EN ISO 15708-2:2019 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 15708-2

April 2019

ICS 19.100

Supersedes EN 16016-2:2011

English Version

Non-destructive testing - Radiation methods for Computed tomography - Part 2: Principles, equipment and samples (ISO 15708-2:2017)

Essais non destructifs - Méthodes par rayonnements pour la tomographie informatisée - Partie 2: Principes, équipements et échantillons (ISO 15708-2:2017)

Zerstörungsfreie Prüfung - Durchstrahlungsverfahren für Computertomografie - Teil 2: Grundlagen, Geräte und Proben (ISO 15708-2:2017)

This European Standard was approved by CEN on 11 February 2019.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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

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

Ref. No. EN ISO 15708-2:2019 E

Contents

Page

European foreword

The text of ISO 15708-2:2017 has been prepared by Technical Committee ISO/TC 135 "Non-destructive testing" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 15708-2:2019 by 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 October 2019, and conflicting national standards shall be withdrawn at the latest by October 2019.

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 16016-2:2011.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 15708-2:2017 has been approved by CEN as EN ISO 15708-2:2019 without any modification.

INTERNATIONAL STANDARD

ISO 15708-2

Second edition
2017-02

Non-destructive testing — Radiation methods for computed tomography —

Part 2: Principles, equipment and samples

Essais non destructifs — Méthodes par rayonnements pour la tomographie informatisée —

Partie 2: Principes, équipements et échantillons

Reference number
ISO 15708-2:2017(E)

COPYRIGHT PROTECTED DOCUMENT

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

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 on 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by the European Committee for Standardization (CEN) (as EN 16016-2) and was adopted, under a special "fast-track procedure", by Technical Committee ISO/TC 135, *Non-destructive testing*, Subcommittee SC 5, *Radiographic testing*, in parallel with its approval by the ISO member bodies.

This second edition of ISO 15708-2 cancels and replaces ISO 15708-1:2002, of which it forms the subject of a technical revision. It takes into consideration developments in computed tomography (CT) and computational power over the preceding decade.

A list of all parts in the ISO 15708 series can be found on the ISO website.

Non-destructive testing — Radiation methods for computed tomography —

Part 2: Principles, equipment and samples

1 Scope

This document specifies the general principles of X-ray computed tomography (CT), the equipment used and basic considerations of sample, materials and geometry.

It is applicable to *industrial* imaging (i.e. non-medical applications) and gives a consistent set of CT performance parameter definitions, including how those performance parameters relate to CT system specifications.

This document deals with computed axial tomography and excludes other types of tomography such as translational tomography and tomosynthesis.

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 15708-1:2017, *Non-destructive testing — Radiation methods for computed tomography — Part 1: Terminology*

ISO 15708-3:2017, *Non-destructive testing — Radiation methods for computed tomography — Part 3: Operation and interpretation*

ISO 15708-4:2017, *Non-destructive testing — Radiation methods for computed tomography — Part 4: Qualification*

ISO 9712, *Non-destructive testing — Qualification and certification of NDT personnel*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 15708-1 apply.

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

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

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

4 General principles

4.1 Basic principles

Computed tomography (CT) is a radiographic inspection method which delivers three-dimensional information on an object from a number of radiographic projections either over cross-sectional planes (CT slices) or over the complete volume. Radiographic imaging is possible because different materials

