

Non-destructive testing - Ultrasonic testing of austenitic and austenitic-ferritic stainless steels flat products of thickness equal to or greater than 6 mm (reflection method)

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 10307:2002 sisaldab Euroopa standardi EN 10307:2001 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 19.04.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 10307:2002 consists of the English text of the European standard EN 10307:2001.</p> <p>This document is endorsed on 19.04.2002 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This European Standard describes a method for the ultrasonic-testing of uncoated flat austenitic and austenitic-ferritic stainless steel product for internal discontinuities. It is applicable to flat product in nominal thickness range of 6 mm to 200 mm.</p>	<p>Scope:</p> <p>This European Standard describes a method for the ultrasonic-testing of uncoated flat austenitic and austenitic-ferritic stainless steel product for internal discontinuities. It is applicable to flat product in nominal thickness range of 6 mm to 200 mm.</p>
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ICS 77.040.20, 77.140.50

Võtmesõnad: detection, grades, in, materials testing, non-destructive testing, nondestructive tests, quality, reflection methods, specification (approval), specifications, stainless steels, steel alloy, steels, testing, ultrasonic frequencies, ultrasonic testing, ultrasonics

ICS 77.040.20; 77.140.50

English version

**Non-destructive testing - Ultrasonic testing of austenitic and
austenitic-ferritic stainless steels flat products of thickness equal
to or greater than 6 mm (reflection method)**

Essais non destructifs - Contrôle par ultrasons des produits
plats en acier inoxydable austénitique et austéno-ferritique
d'épaisseur égale ou supérieure à 6 mm (méthode par
réflexion)

Zerstörungsfreie Prüfung - Ultraschallprüfung von
Flacherzeugnissen aus austenitischem und austenitisch-
ferritischem nichtrostendem Stahl ab 6 mm Dicke
(Reflexionsverfahren)

This European Standard was approved by CEN on 30 September 2001.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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

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Foreword

This European Standard has been prepared by Technical Committee ECISS/TC 2 "Steel - Physico-chemical and 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 April 2002, and conflicting national standards shall be withdrawn at the latest by April 2002.

Annex A is informative.

This standard includes a Bibliography.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard describes a method for the ultrasonic-testing of uncoated flat austenitic and austenitic-ferritic stainless steel product for internal discontinuities. It is applicable to flat product in nominal thickness range of 6 mm to 200 mm. Mechanised, semi-automatic or automatic techniques may be used but should be agreed between the purchaser and the supplier.

This standard also defines 3 quality classes for the flat product body (classes S₁, S₂ and S₃) and 4 quality classes (E₁, E₂, E₃, E₄) for the edges in accordance with the criteria specified in clause 12.

Other methods of testing, e.g. by transmission technique or other test equipments may be used at the manufacturer's discretion provided that they give equivalent results to those obtained under the conditions of this standard. In the event of a dispute, only the method defined in this standard prevails.

Testing of flat product of thickness less than 6 mm may be the subject of special agreements between the parties concerned.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 473, *Non destructive testing - Qualification and certification of NDT personnel - General principles.*

EN 583-2, *Non-destructive testing – Ultrasonic examination - Part 2 : Sensitivity and range setting.*

EN 583-5, *Non-destructive testing - Ultrasonic examination - Part 5 : Characterization and sizing of discontinuities.*

EN 1330-4, *Non destructive testing - Terminology - Part 4 : Terms used in ultrasonic testing.*

EN 12223, *Non-destructive testing – Ultrasonic examination – Specification for calibration block n°1.*

EN 12668-1, *Non-destructive testing - Characterization and verification of ultrasonic examination equipment - Part 1 : Instruments.*

EN 12668-2, *Non-destructive testing - Characterization and verification of ultrasonic examination equipment - Part 2 : Probes.*

EN 12668-3, *Non-destructive testing - Characterization and verification of ultrasonic examination equipment - Part 3 : Combined equipment.*

3 Terms and definitions

Definitions for general terms of non-destructive testing can be found in other European Standards, e.g. EN 1330-1 and EN 1330-2. For the purposes of this European Standard, the terms and definitions given in EN 1330-4 apply, together with the following :

3.1

internal discontinuity

any imperfection lying within the thickness of the flat product, e.g. planar or laminar imperfection, single-plane or multi-plane inclusion bands or clusters

NOTE It is referred in the text as discontinuity.