

Founding - Radiographic examination

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12681:2003 sisaldab Euroopa standardi EN 12681:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.02.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12681:2003 consists of the English text of the European standard EN 12681:2003.</p> <p>This document is endorsed on 18.02.2003 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 gives specific procedures for industrial X-radiation and gamma radiography for discontinuity detection purposes, using film techniques. These procedures are applicable to castings produced by any casting process, especially for steel, cast iron, magnesium, zinc, copper, nickel, aluminium, titanium and any alloys of them</p>	<p>Scope:</p> <p>This European Standard gives specific procedures for industrial X-radiation and gamma radiography for discontinuity detection purposes, using film techniques. These procedures are applicable to castings produced by any casting process, especially for steel, cast iron, magnesium, zinc, copper, nickel, aluminium, titanium and any alloys of them</p>
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ICS 77.040.20

Võtmesõnad: area, detection, gamma radiation, grey iron, iron alloys, non ferrous alloys, nondestructive tests, radiographic analysis, radiographic testing, specification (approval), specifications, surface discontinuities, surfaces, test categories, testing, x rays, x-rays

ICS 77.040.20

English version

Founding - Radiographic examination

Fonderie - Contrôle par radiographie

Gießereiwesen - Durchstrahlungsprüfung

This European Standard was approved by CEN on 21 November 2002.

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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



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

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Foreword

This document (EN 12681:2003) has been prepared by Technical Committee CEN/TC 190 "Foundry Technology", 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 July 2003, and conflicting national standards shall be withdrawn at the latest by July 2003.

Within its programme of work, Technical Committee CEN/TC 190 requested CEN/TC 190/WG 4.10 "Inner defects" to prepare the following standard:

EN 12681, *Founding — Radiographic examination*.

Annex A is informative.

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, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

Radiography can be used to detect internal discontinuities in a casting. The discontinuities can be gas cavities, non-metallic inclusions, shrinkage, cracks, chaplets or chills or inclusions that have lower or higher densities than the parent metal.

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1 Scope

This European Standard gives specific procedures for industrial X-radiation and gamma radiography for discontinuity detection purposes, using film techniques. These procedures are applicable to castings produced by any casting process, especially for steel, cast iron, magnesium, zinc, copper, nickel, aluminium, titanium and any alloys of them.

This European Standard does not apply to:

- the testing of welded joints;
- acceptance criteria;
- radioscopy (real time inspection).

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 444:1994, *Non-destructive testing — General principles for radiographic examination of metallic materials by X- and gamma-rays.*

EN 462-1, *Non-destructive testing — Image quality of radiographs — Part 1: Image quality indicators (wire type) — Determination of image quality value.*

EN 462-2, *Non-destructive testing — Image quality of radiographs — Part 2: Image quality indicators (step/hole type) — Determination of image quality value.*

EN 462-3, *Non-destructive testing — Image quality of radiographs — Part 3: Image quality classes for ferrous metals.*

EN 462-4, *Non-destructive testing — Image quality of radiographs — Part 4: Experimental evaluation of image quality values and image quality tables.*

EN 25580, *Non-destructive testing — Industrial radiographic illuminators — Minimum requirements (ISO 5580 : 1985).*

NOTE Informative references to documents used in the preparation of this standard, and cited at the appropriate places in the text, are listed in the bibliography.