

**Mittepurustav katsetamine.
Metallmaterjalide radiograafilise
röntgeni- ja gammakiirtega
kontrollimise üldpõhimõtted**

Non-destructive testing - General principles for
radiographic examination of metallic materials by X-
and ma-rays

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 444:1999 sisaldab Euroopa standardi EN 444:1994 ingliskeelset teksti.	This Estonian standard EVS-EN 444:1999 consists of the English text of the European standard EN 444:1994.
Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.	This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

Käsitlusala: See Euroopa standard esitab üldjuhised tööstuses rakendatava röntgen- ja gammakiiri kasutava radiograafia kohta, mida kasutatakse defektide avastamiseks, kusjuures metallmaterjalide kontrollimiseks kasutatakse sobivaid pildistamismeetodeid. Kontrollib kompetentne personal, kes on välja õpetatud ja atesteeritud vastavalt standardile EN 473, mille kohta käesolev standard kehtib. Standard ei kehtesta lubatud defektide kriteeriume.	Scope:
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Võtmesõnad: defektid, gammakiirgus, metallurgiatooted, mittepurustavad teimid, röntgenikiired, röntgenograafiline analüüs, röntgenogramm, viilmed

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Descriptors: Metallurgical products, non-destructive tests, radiographic analysis, X-rays, gamma radiation, defects, radiographic film.

English version

Non-destructive testing

**General principles for radiographic examination of
metallic materials using X-rays and gamma-rays**

Essais non-destructifs; principes généraux
de l'examen radiographique à l'aide de
rayons X et gamma des matériaux métal-
liques

Zerstörungsfreie Prüfung; Grundlagen für
die Durchstrahlungsprüfung von metal-
lischen Werkstoffen mit Röntgen- und
Gammastrahlen

This European Standard was approved by CEN on 1994-02-07.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

This Part of this European Standard has been prepared by Technical Committee CEN/TC 138 'Non-destructive testing', the Secretariat of which is held by AFNOR.

It was submitted for Formal Vote, and the result was positive.

This European Standard has been prepared under a mandate given to CEN by the Commission of the European Communities and the European Free Trade Association, and supports essential requirements of relevant EC Directive(s).

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by August 1994 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard:

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

Introduction

This standard specifies fundamental techniques of radiography with the object of enabling satisfactory and repeatable results to be obtained economically. The techniques are based on generally accepted practice and the fundamental theory of the subject.

1 Scope

This European standard outlines the general rules for industrial X- and gamma-radiography for flaw detection purposes, using film techniques, applicable to the inspection metallic materials.

The examination shall be carried out by competent personnel qualified and certified according to EN 473 where applicable.

It does not lay down acceptance criteria of the imperfections.

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 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.

- 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 value¹⁾
- EN 462-3 Non-destructive testing - Image quality of radiographs - Part 3: Image quality classes for ferrous metals¹⁾
- EN 462-4 Non-destructive testing - Image quality of radiographs - Part 4: Experimental evaluation of image quality values and image quality tables¹⁾
- EN 473 Qualification and certification of non-destructive personnel - General principles
- EN 584-1 Non-destructive testing - Industrial radiographic film - Part 1: Classification of film systems for industrial radiography¹⁾
- EN 25 580 Non-destructive testing - Industrial radiographic illuminators - Minimum requirements (ISO 5580:1985)

¹⁾ In preparation