MITTEPURUSTAV KONTROLL. METALLMATERJALIDE RADIOGRAAFILINE KONTROLL FILMI NING RÖNTGEN-VÕI GAMMAKIIRGUSE ABIL. PÕHIREEGLID

Non-destructive testing - Radiographic testing of metallic materials using film and X- or gamma rays - Basic rules (ISO 5579:2013)



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### EUROPEAN STANDARD NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

#### **EN ISO 5579**

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Supersedes EN 444:1994

#### **English Version**

# Non-destructive testing - Radiographic testing of metallic materials using film and X- or gamma rays - Basic rules (ISO 5579:2013)

Essais non destructifs - Contrôle radiographique des matériaux métalliques au moyen de film et de rayons X et gamma - Règles de base (ISO 5579:2013)

Zerstörungsfreie Prüfung - Durchstrahlungsprüfung von metallischen Werkstoffen mit Film und Röntgen- oder Gammastrahlen - Grundlagen (ISO 5579:2013)

This European Standard was approved by CEN on 16 November 2013.

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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.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

#### **Foreword**

The text of ISO 5579:2013 has been prepared by Technical Committee ISO/TC 135 "Non-destructive testing" of the International Organisation for Standardization (ISO) and has been taken over as EN ISO 5579:2013 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of an identical text or by endorsement, at the latest by June 2014, and conflicting national standards shall be withdrawn at the latest by June 2014.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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#### **Endorsement notice**

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#### Introduction

This International Standard specifies fundamental techniques of radiography, with the object of enabling . rep. .ce and .ating to spe. satisfactory and repeatable results to be obtained economically. The techniques are based on generally accepted practice and the fundamental theory of the subject.

Standards relating to specific applications should conform to these basic rules.

## Non-destructive testing — Radiographic testing of metallic materials using film and X- or gamma rays — Basic rules

#### 1 Scope

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

It does not lay down acceptance criteria of the imperfections.

#### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5576, Non-destructive testing — Industrial X-ray and gamma-ray radiology — Vocabulary

ISO 5580, Non-destructive testing — Industrial radiographic illuminators — Minimum requirements

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

ISO 11699-1, Non-destructive testing — Industrial radiographic film — Part 1: Classification of film systems for industrial radiography

ISO 11699-2, Non-destructive testing — Industrial radiographic films — Part 2: Control of film processing by means of reference values

 $ISO\ 19232-1, Non-destructive\ testing\ -- Image\ quality\ of\ radiographs\ -- Part\ 1:\ Determination\ of\ the\ image\ quality\ value\ using\ wire-type\ image\ quality\ indicators$ 

ISO 19232-2, Non-destructive testing — Image quality of radiographs — Part 2: Determination of the image quality value using step/hole-type image quality indicators

ISO 19232-3, Non-destructive testing — Image quality of radiographs — Part 3: Image quality classes

ISO 19232-4, Non-destructive testing — Image quality of radiographs — Part 4: Experimental evaluation of image quality values and image quality tables

EN 12543 (all parts), Non-destructive testing — Characteristics of focal spots in industrial X-ray systems for use in non-destructive testing — Part 2: Pinhole camera radiographic method

EN 12679, Non-destructive testing — Determination of the size of industrial radiographic sources — Radiographic method

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions in ISO 5576 and the following apply.

#### 3.1

#### nominal thickness

t

nominal thickness of the material in the region under examination

Note 1 to entry: Manufacturing tolerances do not have to be taken into account.