Non-destructive testing - Penetrant testing and magnetic particle testing - Viewing conditions

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO 3059:2002 sisaldab Euroopa standardi EN ISO 3059:2001 ingliskeelset teksti. Käesolev dokument on jõustatud 19.04.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 3059:2002 consists of the English text of the European standard EN ISO 3059:2001. This document is endorsed on 19.04.2002 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This European Standard describes the control of the viewing conditions for magnetic particle and penetrant testing. It includes minimum requirements for the illuminance and UV-A irradiance and their measurement. It is intended for use when the human eye is the primarly detection aid.	**Scope:** This European Standard describes the control of the viewing conditions for magnetic particle and penetrant testing. It includes minimum requirements for the illuminance and UV-A irradiance and their measurement. It is intended for use when the human eye is the primarly detection aid.

ICS 19.100

Võtmesõnad: magnetic-particle flaw, methods, non-destructive testing, nondestructive tests, penetrant flaw detection, penetration methods, safety, specification (approval), specifications, test equipment, testing, testing conditions, ultraviolet radiation, viewing conditions

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 3059

October 2001

ICS 19.100

English version

Non-destructive testing

Penetrant testing and magnetic particle testing

Viewing conditions

(ISO 3059 : 2001)

Essais non destructifs – Essai par ressuage et essai par magnétoscopie – Conditions d'observation
(ISO 3059 : 2001)

Zerstörungsfreie Prüfung – Eindringprüfung und Magnetpulverprüfung – Betrachtungsbedingungen
(ISO 3059 : 2001)

This European Standard was approved by CEN on 2000-04-13.

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.

The European Standards exist 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, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

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

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Foreword

The text of EN ISO 3059:2001 has been prepared by Technical Committee CEN/TC 138 "Non-destructive testing", the secretariat of which is held by AFNOR, in collaboration with Technical Committee ISO/TC 135 "Non-destructive testing".

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 May 2002, and conflicting national standards shall be withdrawn at the latest by May 2002.

NOTE This document is referenced as prEN 1956 in some European Standards.

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.

Introduction

Both penetrant and magnetic particle testing require controlled conditions for viewing indications, for example:

- sufficient white light to achieve reliable testing with colour contrast techniques;

- adequate UV-A irradiance with minimal light for fluorescent systems.

1 Scope

This European Standard describes the control of the viewing conditions for magnetic particle and penetrant testing. It includes minimum requirements for the illuminance and UV-A irradiance and their measurement. It is intended for use when the human eye is the primary detection aid.

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, *Qualification and certification of NDT personnel - General principles*.

IEC 60050-845, *International Electrotechnical Vocabulary - Lighting*.

3 Safety precautions

All European, national and local regulations including health and safety shall be taken into account.

Care shall be taken to minimize personnel exposure to UV-A radiation. Exposure of personnel to UV-A radiation below 330 nm should be avoided. Exposure of personnel to UV-B and UV-C radiation shall be avoided (e.g. from damaged or cracked filters).

4 Colour contrast techniques

4.1 Light sources

Inspection shall be carried out in daylight or with artificial light. Monochromatic sources such as sodium bulbs shall not be used.

The test surface shall be illuminated evenly. Glare and reflections shall be avoided.

4.2 Measurements

The illuminance at the test surface shall be determined by means of an illuminance meter under working conditions. The nominal spectral response of the meter shall be in accordance with IEC 60050-845.

4.3 Requirements

The illuminance at the test surface shall be 500 lx or greater.