

**MITTEPURUSTAV KATSETAMINE. KAPILLAARKATSE JA
MAGNETPULBERKATSE. VAATLEMISE TINGIMUSED
(ISO 3059:2012)**

**Non-destructive testing - Penetrant testing and
magnetic particle testing - Viewing conditions (ISO
3059:2012)**

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

See Eesti standard EVS-EN ISO 3059:2012 sisaldab Euroopa standardi EN ISO 3059:2012 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 3059:2012 consists of the English text of the European standard EN ISO 3059:2012.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 01.12.2012.	Date of Availability of the European standard is 01.12.2012.
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English Version

Non-destructive testing - Penetrant testing and magnetic particle testing - Viewing conditions (ISO 3059:2012)

Essais non destructifs - Contrôle par ressuage et contrôle par magnétoscopie - Conditions d'observation (ISO 3059:2012)

Zerstörungsfreie Prüfung - Eindringprüfung und Magnetpulverprüfung - Betrachtungsbedingungen (ISO 3059:2012)

This European Standard was approved by CEN on 30 November 2012.

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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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Foreword

This document (EN ISO 3059:2012) 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of an identical text or by endorsement, at the latest by June 2013, and conflicting national standards shall be withdrawn at the latest by June 2013.

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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Introduction

Both penetrant and magnetic particle testing require controlled conditions for viewing indications, e.g.:

- adequate white light to achieve reliable testing with colour contrast techniques;
- adequate UV-A irradiance with minimal light for fluorescent systems.

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

1 Scope

This International Standard specifies 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.

This International Standard does not cover the use of actinic blue light sources.

2 Normative references

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

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

ISO 12706, *Non-destructive testing — Penetrant testing — Vocabulary*

ISO 12707, *Non-destructive testing — Terminology — Terms used in magnetic particle testing*

IEC 60050-845, *International electrotechnical vocabulary — Chapter 845: lighting*

EN 1330-1, *Non-destructive testing — Terminology — Part 1: List of general terms*

EN 1330-2, *Non-destructive testing — Terminology — Part 2: Terms common to the non-destructive testing methods*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 12706, ISO 12707, EN 1330-1, and EN 1330-2 apply.

4 Safety precautions

All relevant international, regional, national and local regulations including health and safety shall be taken into account (e.g. optical radiation directives).

Care shall be taken to minimize exposure of personnel to harmful optical radiation. Exposure to UV radiation below 330 nm shall be avoided (e.g. from damaged or cracked filters) and exposure to high levels of other potentially harmful radiation (e.g. 365 nm or visible radiation from white light LEDs, which have a high proportion of blue light) should be minimized. The eye is particularly at risk.

5 Colour contrast techniques

5.1 Light sources

Inspection shall be carried out in daylight or artificial white light. Where artificial sources are used, the colour temperature shall not be below 2 500 K and it is recommended to use sources above 3 300 K. Consult the information from the lamp manufacturer to confirm the colour temperature.