



**NSAI**  
Standards

Irish Standard  
I.S. EN ISO 12707:2016

# Non-destructive testing - Magnetic particle testing - Vocabulary (ISO 12707:2016)

## I.S. EN ISO 12707:2016

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

*This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):*

*NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.*

*This document is based on:*

EN ISO 12707:2016

*Published:*

2016-04-06

*This document was published  
under the authority of the NSAI  
and comes into effect on:*

2016-04-24

ICS number:

01.040.19

19.100

NOTE: If blank see CEN/CENELEC cover page

NSAI  
1 Swift Square,  
Northwood, Santry  
Dublin 9

T +353 1 807 3800  
F +353 1 807 3838  
E standards@nsai.ie  
W NSAI.ie

Sales:  
T +353 1 857 6730  
F +353 1 857 6729  
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

## National Foreword

I.S. EN ISO 12707:2016 is the adopted Irish version of the European Document EN ISO 12707:2016, Non-destructive testing - Magnetic particle testing - Vocabulary (ISO 12707:2016)

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

**Compliance with this document does not of itself confer immunity from legal obligations.**

*In line with international standards practice the decimal point is shown as a comma (,) throughout this document.*

This page is intentionally left blank

EUROPEAN STANDARD

**EN ISO 12707**

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2016

ICS 01.040.19; 19.100

Supersedes EN 1330-7:2005

English Version

## Non-destructive testing - Magnetic particle testing - Vocabulary (ISO 12707:2016)

Essais non destructifs - Magnétoscopie - Vocabulaire  
(ISO 12707:2016)

Zerstörungsfreie Prüfung - Magnetpulverprüfung -  
Vokabular (ISO 12707:2016)

This European Standard was approved by CEN on 8 February 2016.

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 CEN-CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

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

**EN ISO 12707:2016 (E)**

<b>Contents</b>	<b>Page</b>
<b>European foreword.....</b>	<b>3</b>

## **European foreword**

This document (EN ISO 12707:2016) has been prepared by Technical Committee ISO/TC 135 "Non-destructive testing" in collaboration with 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 October 2016, and conflicting national standards shall be withdrawn at the latest by October 2016.

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.

This document supersedes EN 1330-7:2005.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### **Endorsement notice**

The text of ISO 12707:2016 has been approved by CEN as EN ISO 12707:2016 without any modification.

This page is intentionally left blank



# INTERNATIONAL STANDARD

**ISO  
12707**

First edition  
2016-03-01

---

---

## **Non-destructive testing — Magnetic particle testing — Vocabulary**

*Essais non destructifs — Magnétoscopie — Vocabulaire*



Reference number  
ISO 12707:2016(E)

© ISO 2016

**ISO 12707:2016(E)**



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Ch. de Blandonnet 8 • CP 401  
CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
Fax +41 22 749 09 47  
copyright@iso.org  
www.iso.org

## **Contents**

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Terms and definitions</b> .....	<b>1</b>
<b>Bibliography</b> .....	<b>5</b>

## ISO 12707:2016(E)

### Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: [Foreword — Supplementary information](#).

ISO 12707 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 138, *Non-destructive testing*, in collaboration with ISO Technical Committee TC 135, *Non-destructive testing*, Subcommittee SC 2, *Surface methods*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This first edition of ISO 12707 is based on, and constitutes a technical revision of, European Standard EN 1330-7:2005.

# Non-destructive testing — Magnetic particle testing — Vocabulary

## 1 Scope

This International Standard defines general terms specifically associated with magnetic particle testing.

## 2 Terms and definitions

### 2.1

#### **adjacent conductor technique**

magnetization using a bar or cable close to, but isolated from the test surface

### 2.2

#### **ampere turns**

product of the number of turns of a coil and the current in amperes flowing through the coil

### 2.3

#### **arcing strike**

poor electrical contact causing burn damage

### 2.4

#### **carrier liquid**

liquid in which the *magnetic particles* ([2.30](#)) are suspended for the wet technique

### 2.5

#### **central conductor**

threaded conductor positioned in the centre of an aperture of the component

### 2.6

#### **circular magnetization**

continuous lines of force within a test piece produced by current flow or a conductor surrounded by the test piece

### 2.7

#### **coil technique**

magnetization using a flexible cable or a rigid coil to test all or a part of a component

### 2.8

#### **coloured detection medium**

detection medium for testing with visible light

### 2.9

#### **concentrate**

detection medium supplied in a form requiring dilution before use

### 2.10

#### **conditioning agent**

additive in water-based media used to improve their properties which may include wetting, antifoaming and corrosion inhibitors

### 2.11

#### **constant current control**

device to maintain the pre-set current

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- Looking for additional Standards? Visit Intertek Inform Infostore
  - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-