

### SLOVENSKI STANDARD SIST EN ISO 16810:2014

01-julij-2014

Nadomešča:

SIST EN 583-1:2000

SIST EN 583-1:2000/A1:2004

Neporušitvene preiskave - Ultrazvočne preiskave - Splošna načela (ISO 16810:2012)

Non-destructive testing - Ultrasonic testing - General principles (ISO 16810:2012)

Zerstörungsfreie Prüfung Ultraschallprüfung Allgemeine Grundsätze (ISO 16810:2012) (standards.iteh.ai)

Essais non destructifs - Contrôle par ultrasons 16 Principes généraux (ISO 16810:2012) https://standards.iteh.ai/catalog/standards/sist/582a1775-/f5d-49a6-85dd-bf3b7fc14247/sist-en-iso-16810-2014

Ta slovenski standard je istoveten z: EN ISO 16810:2014

ICS:

19.100 Neporušitveno preskušanje Non-destructive testing

SIST EN ISO 16810:2014 en

**SIST EN ISO 16810:2014** 

# iTeh STANDARD PREVIEW (standards.iteh.ai)

EUROPEAN STANDARD NORME EUROPÉENNE **EN ISO 16810** 

EUROPÄISCHE NORM

March 2014

ICS 19.100

Supersedes EN 583-1:1998

#### **English Version**

### Non-destructive testing - Ultrasonic testing - General principles (ISO 16810:2012)

Essais non destructifs - Contrôle par ultrasons - Principes généraux (ISO 16810:2012)

Zerstörungsfreie Prüfung - Ultraschallprüfung - Allgemeine Grundsätze (ISO 16810:2012)

This European Standard was approved by CEN on 9 February 2014.

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.

SIST EN ISO 16810:2014

https://standards.iteh.ai/catalog/standards/sist/582a1775-7f5d-49a6-85dd-bf3b7fc14247/sist-en-iso-16810-2014



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

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

### EN ISO 16810:2014 (E)

Contents	Page	
Foreword	3	

### iTeh STANDARD PREVIEW (standards.iteh.ai)

EN ISO 16810:2014 (E)

#### **Foreword**

The text of ISO 16810:2012 has been prepared by Technical Committee ISO/TC 135 "Non-destructive testing" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 16810:2014 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 September 2014, and conflicting national standards shall be withdrawn at the latest by September 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.

This document supersedes EN 583-1:1998.

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 16810:2012 has been approved by CEN as EN ISO 16810:2014 without any modification. (standards.iteh.ai)

**SIST EN ISO 16810:2014** 

# iTeh STANDARD PREVIEW (standards.iteh.ai)

**SIST EN ISO 16810:2014** 

### INTERNATIONAL STANDARD

ISO 16810

First edition 2012-04-01

### Non-destructive testing — Ultrasonic testing — General principles

Essais non destructifs — Contrôle par ultrasons — Principes généraux

### iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN ISO 16810:2014</u> https://standards.iteh.ai/catalog/standards/sist/582a1775-7f5d-49a6-85dd-bf3b7fc14247/sist-en-iso-16810-2014



Reference number ISO 16810:2012(E)

ISO 16810:2012(E)

### iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN ISO 16810:2014</u> https://standards.iteh.ai/catalog/standards/sist/582a1775-7f5d-49a6-85dd-bf3b7fc14247/sist-en-iso-16810-2014



### **COPYRIGHT PROTECTED DOCUMENT**

#### © ISO 2012

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Cont	<b>ents</b>	age
Forewo	ord	iv
Introdu	uction	v
1	Scope	1
2	Normative references	1
3	Qualification and certification of personnel	2
4	Information required prior to examination	2
5 5.1 5.2 5.3 5.4	Principles of ultrasonic examination	3 3
6 6.1 6.2 6.2.1 6.2.2 6.2.3 6.2.4 6.2.5	Equipment  Ultrasonic instrument  Ultrasonic probes  Probe selection  Frequency and dimensions of transducer  Dead zone iTch STANDARD PREVIEW  Damping  Focusing probes (standards.itch.ai)  Coupling media	4 4 4 4
6.4 C 6.5 F 6.6 S	Calibration blocks  Reference blocks  SIST EN ISO 16810:2014  Specific blocks//standards.iteh.ai/catalog/standards/sist/582a1775-7f5d-49a6-85dd-	5 5
7 7.1 7.2 7.3 7.4	Settings	6 6 7
8 8.1 8.2 8.3	Preparation for examination	7 7
9 9.1 9.2 9.2.1 9.2.2 9.3 9.3.1 9.3.2	Examination	8 8 8 8
10 10.1 10.2 11	Characterization of imperfections  Pulse echo technique  Transmission techniques  Examination procedure	8 9
12	Examination report	

ISO 16810:2012(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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 16810 was prepared by Technical Committee ISO/TC 135, *Non-destructive testing*, Subcommittee SC 3, *Ultrasonic testing*.

iTeh STANDARD PREVIEW (standards.iteh.ai)

ISO 16810:2012(E)

### Introduction

This International Standard is based on EN 583-1:1998, *Non-destructive testing — Ultrasonic examination — Part 1: General principles*.

The following International Standards are linked.

ISO 16810, Non-destructive testing — Ultrasonic testing — General principles

ISO 16811, Non-destructive testing — Ultrasonic testing — Sensitivity and range setting

ISO 16823, Non-destructive testing — Ultrasonic testing — Transmission technique

ISO 16826, Non-destructive testing — Ultrasonic testing — Examination for discontinuities perpendicular to the surface

ISO 16827, Non-destructive testing — Ultrasonic testing — Characterization and sizing of discontinuities

ISO 16828, Non-destructive testing — Ultrasonic testing — Time-of-flight diffraction technique as a method for detection and sizing of discontinuities

iTeh STANDARD PREVIEW (standards.iteh.ai)