



NSAI
Standards

Irish Standard
I.S. EN ISO 5577:2017

Non-destructive testing - Ultrasonic testing - Vocabulary (ISO 5577:2017)

I.S. EN ISO 5577:2017

Incorporating amendments/corrigenda/National Annexes issued since publication:

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

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National Foreword

I.S. EN ISO 5577:2017 is the adopted Irish version of the European Document EN ISO 5577:2017, Non-destructive testing - Ultrasonic testing - Vocabulary (ISO 5577:2017)

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EUROPEAN STANDARD

EN ISO 5577

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2017

ICS 01.040.19; 19.100

Supersedes EN 1330-4:2010

English Version

Non-destructive testing - Ultrasonic testing - Vocabulary (ISO 5577:2017)

Essais non destructif - Contrôle par ultrasons -
Vocabulaire (ISO 5577:2017)

Zerstörungsfreie Prüfung - Ultraschallprüfung -
Terminologie (ISO 5577:2017)

This European Standard was approved by CEN on 28 December 2016.

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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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EN ISO 5577:2017 (E)

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European foreword

This document (EN ISO 5577:2017) 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of an identical text or by endorsement, at the latest by August 2017, and conflicting national standards shall be withdrawn at the latest by August 2017.

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 1330-4:2010.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 5577:2017 has been approved by CEN as EN ISO 5577:2017 without any modification.

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**INTERNATIONAL
STANDARD**

**ISO
5577**

Second edition
2017-02

**Non-destructive testing — Ultrasonic
testing — Vocabulary**

Essais non destructif — Contrôle par ultrasons — Vocabulaire



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ISO 5577:2017(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).

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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 World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

ISO 5577 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 3, *Ultrasonic testing*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 5577:2000), which has been technically revised with changes to terms and definitions and structure.

Non-destructive testing — Ultrasonic testing — Vocabulary

1 Scope

This document defines the terms used in ultrasonic non-destructive testing and forms a common basis for standards and general use. This document does not cover terms used in ultrasonic testing with phased arrays.

NOTE Terms for phased array ultrasonic testing are defined in EN 16018.

2 Normative references

There are no normative references in this document.

3 Terms related to frequencies, waves and pulses

For the purposes of this document, the terms and definitions given in this clause and those given in Clauses 4, 5 and 6 for sound, test equipment and ultrasonic testing apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1 Frequencies

3.1.1

frequency

number of cycles per second

Note 1 to entry: Expressed in Hertz (Hz).

3.1.2

nominal frequency

probe frequency

frequency (3.1.1) of the *probe* (5.2.1) as stated by the manufacturer

3.1.3

test frequency

effective ultrasonic frequency of a system used to test a material or object

3.1.4

frequency spectrum

distribution of *amplitude* (3.2.2) in relation to *frequency* (3.1.1)

Note 1 to entry: See [Figure 1](#).

3.1.5

centre frequency

arithmetic mean of the cut-off frequencies

Note 1 to entry: See [Figure 1](#).

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