

Non-destructive testing - Leak testing - Vocabulary (ISO 20484:2017)

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ICS 01.040.19, 19.100

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EUROPEAN STANDARD

**EN ISO 20484**

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English Version

## Non-destructive testing - Leak testing - Vocabulary (ISO 20484:2017)

Essais non-destructifs - Contrôle d'étanchéité -  
Vocabulaire (ISO 20484:2017)

Zerstörungsfreie Prüfung - Dichtheitsprüfung - Begriffe  
(ISO 20484:2017)

This European Standard was approved by CEN on 5 February 2017.

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

## European foreword

This document (EN ISO 20484:2017) 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of an identical text or by endorsement, at the latest by October 2017, and conflicting national standards shall be withdrawn at the latest by October 2017.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 1330-8:1998.

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

### Endorsement notice

The text of ISO 20484:2017 has been approved by CEN as EN ISO 20484:2017 without any modification.

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## 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)).

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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 voluntary nature of standards, 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](http://www.iso.org/iso/foreword.html)

ISO 20484 was prepared by the European Committee Standardization (CEN) Technical Committee CEN/TC 138, *Leak testing*, in collaboration with ISO Technical Committee TC 135, *Non-destructive testing*, Subcommittee SC 6, *Leak testing*, in accordance with the agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This document is based on and replaces the European standard EN 1330-8:1998, *Non-destructive testing — Terminology — Part 8: Terms used in leak tightness testing*.

## Introduction

The series of European standards, EN 1330, comprises 10 parts prepared separately by groups of experts, each group consisting of experts in a given NDT (non-destructive testing) method (for EN 1330-3 to EN 1330-10).

A comparative examination of these parts has shown the existence of common terms that are often defined differently. These terms have been taken from EN 1330-3 to EN 1330-10 and then split into two categories:

- general terms corresponding to other fields such as physics, electricity, metrology, etc. and already defined in international documents; these terms are the subject of EN 1330-1;
- common terms specific to NDT; these terms, the definitions of which have been harmonized in an Ad Hoc group, are the subject of EN 1330-2.

In view of the nature of the approach taken, the list of terms in EN 1330-1 and EN 1330-2 are in no way exhaustive.

EN 1330 consists of the following parts:

- *Part 1: General terms*
- *Part 2: Terms common to the non-destructive testing methods*
- *Part 3: Terms used in industrial radiographic testing*
- *Part 4: Terms used in ultrasonic testing*
- *Part 7: Terms used in magnetic particle testing*
- *Part 9: Terms used in acoustic emission*
- *Part 10: Terms used in visual examination*

NOTE 1 ISO 12718 replaced EN 1330-5.

NOTE 2 ISO 12706 was published formerly as the draft European standard prEN 1330-6.

# Non-destructive testing — Leak testing — Vocabulary

## 1 Scope

This document defines the terms used in leak testing.

## 2 Normative references

There are no normative references in this document.

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

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

### 3.1 Atomic/molecular structure

#### 3.1.1 concentration

*c*

ratio of the number of atoms or molecules of a given constituent in a gas mixture to the total number of atoms or molecules in the mixture

Note 1 to entry: For ideal gases, this is equivalent to the ratio of the partial pressure to the total pressure.

Note 2 to entry: In other cases, the concentration is considered as mole fraction and the symbol used is  $n_B$ .

#### 3.1.2 ionization potential

minimum energy, expressed in electronvolts, required to remove an electron from an atom or molecule or ion to form a positive ion

### 3.2 Pressure and vacuum

#### 3.2.1 atmospheric pressure

pressure of the atmosphere at a specified place and time

#### 3.2.2 partial pressure

$p_A, p_B$

pressure that would be exerted by a gas or vapour if it alone was present in an enclosure

### 3.3 Gas-solid interaction

#### 3.3.1 gettering

removal of a gas by permanent binding in or on a solid, usually involving chemical reaction