

This is a preview of "BS EN ISO 9712:2012". [Click here to purchase the full version from the ANSI store.](#)

BS EN ISO 9712:2012



BSI Standards Publication

Non-destructive testing — Qualification and certification of NDT personnel (ISO 9712:2012)

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

raising standards worldwide™



This is a preview of "BS EN ISO 9712:2012". [Click here to purchase the full version from the ANSI store.](#)

This British Standard is the UK implementation of EN ISO 9712:2012. It supersedes BS EN 473:2008 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee WEE/46, Non-destructive testing.

A list of organizations represented on this committee can be obtained on request to its secretary.

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

© The British Standards Institution 2012. Published by BSI Standards Limited 2012

ISBN 978 0 580 74535 5

ICS 03.100.30; 19.100

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 June 2012.

Amendments issued since publication

Date	Text affected
------	---------------

This is a preview of "BS EN ISO 9712:2012". [Click here to purchase the full version from the ANSI store.](#)

EUROPÄISCHE NORM

June 2012

ICS 03.100.30; 19.100

Supersedes EN 473:2008

English Version

Non-destructive testing - Qualification and certification of NDT personnel (ISO 9712:2012)

Essais non destructifs - Qualification et certification du personnel END (ISO 9712:2012)

Zerstörungsfreie Prüfung - Qualifizierung und Zertifizierung von Personal der zerstörungsfreien Prüfung (ISO 9712:2012)

This European Standard was approved by CEN on 2 June 2012.

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, 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

Management Centre: Avenue Marnix 17, B-1000 Brussels

This is a preview of "BS EN ISO 9712:2012". [Click here to purchase the full version from the ANSI store.](#)

Foreword

This document (EN ISO 9712:2012) 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 December 2012, and conflicting national standards shall be withdrawn at the latest by December 2012.

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 473:2008.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive.

For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.

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, 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 9712:2012 has been approved by CEN as a EN ISO 9712:2012 without any modification.

This is a preview of "BS EN ISO 9712:2012". [Click here to purchase the full version from the ANSI store.](#)

Annex ZA (informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 97/23/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide one means of conforming to Essential Requirements of the New Approach Directive 97/23/EC, *Pressure Equipment Directive*.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the clauses of this standard given in Table ZA confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

Table ZA — Correspondence between this European Standard and Directive 97/23/EC

Clause(s)/sub-clause(s) of this European Standard	Essential Requirements (ERs) of Directive 97/23/EC	Qualifying remarks/Notes
7	Annex I, 3.1.3	
8	Annex I, 3.1.3	
9.4	Annex I, 3.1.3	
10	Annex I, 3.1.3	
11	Annex I, 3.1.3	

WARNING — Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard.

This is a preview of "BS EN ISO 9712:2012". [Click here to purchase the full version from the ANSI store.](#)

Contents

Page

Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Methods and abbreviated terms	5
5 Responsibilities	5
5.1 General	5
5.2 Certification body	5
5.3 Authorized qualification body	6
5.4 Examination centre	6
5.5 Employer	7
5.6 Candidate	8
5.7 Certificate holders	8
6 Levels of qualification	8
6.1 Level 1	8
6.2 Level 2	8
6.3 Level 3	9
7 Eligibility	9
7.1 General	9
7.2 Training	9
7.3 Industrial NDT experience	11
7.4 Vision requirements — all levels	12
8 Qualification examination	13
8.1 General	13
8.2 Examination content and grading for Level 1 and Level 2	13
8.3 Examination content and grading for Level 3	15
8.4 Conduct of examinations	17
8.5 Re-examination	17
8.6 Examination exemptions	18
9 Certification	18
9.1 Administration	18
9.2 Certificates and/or wallet cards	18
9.3 Digital certificates	19
9.4 Validity	19
10 Renewal	19
11 Recertification	20
11.1 General	20
11.2 Level 1 and 2	20
11.3 Level 3	20
12 Files	21
13 Transition period	21
14 Transition between EN 473:2008, ^[4] ISO 9712:2005 and this International Standard	22
Annex A (normative) Sectors	23
Annex B (normative) Minimum number and type of specimens for the Level 1 and Level 2 practical examination	24
Annex C (normative) Structured credit system for Level 3 recertification	25

This is a preview of "BS EN ISO 9712:2012". [Click here to purchase the full version from the ANSI store.](#)

Annex D (normative) Grading practical examination	27
Annex E (informative) Engineering of NDT	30
Bibliography	31

This is a preview of "BS EN ISO 9712:2012". [Click here to purchase the full version from the ANSI store.](#)

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 9712 was prepared by Technical Committee ISO/TC 135, *Non-destructive testing*, Subcommittee SC 7, *Personnel qualification*.

This fourth edition cancels and replaces the third edition (ISO 9712:2005), which has been technically revised.

Changes from the third edition include:

- clarification of responsibilities for the certification body, the qualification body, and the examination centre;
- redrafting of the clause “training” for clarification and change in the number of required hours;
- redrafting of the clause “experience” for clarification;
- introduction of “digital certificates”;
- other minor technical and editorial changes.

This is a preview of "BS EN ISO 9712:2012". [Click here to purchase the full version from the ANSI store.](#)

Introduction

Since the effectiveness of any application of non-destructive testing (NDT) depends upon the capabilities of the persons who perform or are responsible for the test, a procedure has been developed to provide a means of evaluating and documenting the competence of personnel whose duties require the appropriate theoretical and practical knowledge of the non-destructive tests they perform, specify, supervise, monitor or evaluate. An added incentive stems from the worldwide comparability of a wide range of industrial applications requiring common non-destructive testing approaches.

When certification of NDT personnel is required in product standards, regulations, codes or specifications, it is important to certify the personnel in accordance with this International Standard. When latitude is provided in the criteria within this International Standard, the certification body has the final decision in determining specific requirements.

When there is no requirement in legislation, in standard or in the order for certification of NDT personnel, it is for employers of such personnel to decide how to assure themselves that they are competent to do the work assignments. Thus, they may employ people who are already certified or they may apply their own expertise so as to assure themselves that their employee has the necessary competence. In this last case, prudent employers would no doubt use this International Standard as a reference document.

This is a preview of "BS EN ISO 9712:2012". [Click here to purchase the full version from the ANSI store.](#)

Non-destructive testing — Qualification and certification of NDT personnel

1 Scope

This International Standard specifies requirements for principles for the qualification and certification of personnel who perform industrial non-destructive testing (NDT).

NOTE 1 The term “industrial” implies the exclusion of applications in the field of medicine.

The system specified in this International Standard can also apply to other NDT methods or to new techniques within an established NDT method, provided a comprehensive scheme of certification exists and the method or technique is covered by International, regional or national standards or the new NDT method or technique has been demonstrated to be effective to the satisfaction of the certification body.

NOTE 2 CEN/TR 14748^[5] can be used as guidance.

The certification covers proficiency in one or more of the following methods:

- a) acoustic emission testing;
- b) eddy current testing;
- c) infrared thermographic testing;
- d) leak testing (hydraulic pressure tests excluded);
- e) magnetic testing;
- f) penetrant testing;
- g) radiographic testing;
- h) strain gauge testing;
- i) ultrasonic testing;
- j) visual testing (direct unaided visual tests and visual tests carried out during the application of another NDT method are excluded).

NOTE 3 This International Standard specifies requirements for what are, in effect, third party conformity assessment schemes. These requirements do not directly apply to conformity assessment by second or first parties, but relevant parts of this International Standard can be referred to in such arrangements.

NOTE 4 Wherever gender specific words such as “his”, “her”, “he” or “she” appear in this International Standard, the other gender is also applicable.

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/IEC 17024, *Conformity assessment — General requirements for bodies operating certification of persons*