

Non-destructive testing - Ultrasonic testing - Technique of testing claddings produced by welding, rolling and explosion (ISO 17405:2014)

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ICS 19.100

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EUROPEAN STANDARD

EN ISO 17405

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2014

ICS 19.100

English Version

**Non-destructive testing - Ultrasonic testing - Technique of testing
claddings produced by welding, rolling and explosion (ISO
17405:2014)**

Essais non destructifs - Essais par ultrasons - Technique
d'essai des placages produits par soudage, laminage et
explosion (ISO 17405:2014)

Zerstörungsfreie Prüfung - Ultraschallprüfung - Techniken
zur Prüfung von Plattierungen hergestellt durch Schweißen,
Walzen und Sprengen (ISO 17405:2014)

This European Standard was approved by CEN on 21 June 2014.

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

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Foreword

This document (EN ISO 17405:2014) 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of an identical text or by endorsement, at the latest by January 2015, and conflicting national standards shall be withdrawn at the latest by January 2015.

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.

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Endorsement notice

The text of ISO 17405:2014 has been approved by CEN as EN ISO 17405:2014 without any modification.

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Non-destructive testing — Ultrasonic testing — Technique of testing claddings produced by welding, rolling and explosion

1 Scope

This International Standard specifies the techniques for manual ultrasonic testing of claddings on steel applied by welding, rolling, and explosion using single-element or dual-element probes.

The test is intended to cover detection of two-dimensional or three-dimensional discontinuities in the cladding and in the region of the interface.

This International Standard does not give acceptance criteria nor define the extent of testing.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2400, *Non-destructive testing — Ultrasonic testing — Specification for calibration block No. 1*

EN 1330-4, *Non-destructive testing — Terminology — Part 4: Terms used in ultrasonic testing*

EN 12668-1, *Non-destructive testing — Characterization and verification of ultrasonic examination equipment — Part 1: Instruments*

EN 12668-2, *Non-destructive testing — Characterization and verification of ultrasonic examination equipment — Part 2: Probes*

EN 12668-3, *Non-destructive testing — Characterization and verification of ultrasonic examination equipment — Part 3: Combined equipment*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1330-4 and the following apply.

3.1

test object

part to be tested

3.2

test surface

areas of the surface of the test object to which probes have to be coupled

4 Ultrasonic test system

4.1 General

The ultrasonic pulse-echo technique is used. For two-dimensional discontinuities parallel to the test surface and three-dimensional discontinuities, straight beam probes (dual-element or single-element) shall be used for testing with longitudinal waves.