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Copper and copper alloys - Eddy current testing on the outer surface of rods, bars, hollow rods and wires for the detection of defects by encircling test coil

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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English Version

Copper and copper alloys - Eddy current testing on the outer surface of rods, bars, hollow rods and wires for the detection of defects by encircling test coil

Cuivre et alliages de cuivre - Contrôle par courants de Foucault de la surface externe des barres, des barres rectangulaires, des barres creuses et des fils pour la détection des défauts avec une bobine encerclante

Kupfer und Kupferlegierungen - Wirbelstromprüfung an der Oberfläche von Stangen, Rechteckstangen, Hohlstangen und Drähten zur Messung von Fehlern mit umfassender Prüfspule

This European Standard was approved by CEN on 12 May 2019.

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

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EN 17263:2019 (E)

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European foreword

This document (EN 17263:2019) has been prepared by Technical Committee CEN/TC 133 “Copper and copper alloys”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by January 2020, and conflicting national standards shall be withdrawn at the latest by January 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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EN 17263:2019 (E)**Introduction**

The eddy current testing (ET) described in this document has the objective of detecting defects located on or near the surface in copper and copper alloy rods, bars, hollow rods and wires in a non-destructive way.

The eddy current test referenced in this document is able to detect significant discontinuities of the short abrupt type (typical defects e.g. cracks, laps, fins, shells, rolled-in matter) by the differential method with encircling test coils. Inhomogeneities evenly extending longitudinally over a large area cannot always be detected with this method.

The purpose of this document is not to define a method of measuring the actual extent of the material inhomogeneities, as the signal amplitude is also depending of factors e.g. volume, form and position of the inhomogeneity.

For the tested rods, bars, hollow rods and wires with no inhomogeneities detected, no conclusions can be drawn as to the functionality of the parts made from these rods, bars, hollow rods and wires.

1 Scope

This document specifies a procedure for fully automatic eddy current testing with no operator involvement with an encircling test coil for detecting defects on the surface of copper and copper alloy rods, bars, hollow rods and wires with a minimum diameter or width across flats defined in the relevant product standards.

This test method can be continuous or discontinuous depending on the product.

The product size range and test acceptance level are defined in the relevant product standards.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN ISO 12718, *Non-destructive testing — Eddy current testing — Vocabulary (ISO 12718)*

EN ISO 9712, *Non-destructive testing — Qualification and certification of NDT personnel (ISO 9712)*

EN ISO 15549, *Non-destructive testing — Eddy current testing — General principles (ISO 15549)*

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