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Destructive tests on welds in metallic materials - Etchants for macroscopic and microscopic examination (ISO/TR 16060:2003)

Táto technická normalizačná informácia obsahuje anglickú verziu CEN ISO/TR 16060:2014, ISO/TR 16060:2003. This Technical standard information includes the English version of CEN ISO/TR 16060:2014, ISO/TR 16060:2003.

Táto technická normalizačná informácia bola oznámená vo Vestníku ÚNMS SR č. 08/15

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#### **English Version**

## Destructive tests on welds in metallic materials - Etchants for macroscopic and microscopic examination (ISO/TR 16060:2003)

Essais destructifs des soudures sur matériaux métalliques -Réactifs pour examens macroscopique et microscopique (ISO/TR 16060:2003) Zerstörende Prüfung von Schweißverbindungen an metallischen Werkstoffen - Ätzungen für die makroskopische und mikroskopische Untersuchung (ISO/TR 16060:2003)

This Technical Report was approved by CEN on 18 August 2014. It has been drawn up by the Technical Committee CEN/TC 121.

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#### CEN ISO/TR 16060:2014 (E)

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#### **Foreword**

The text of ISO/TR 16060:2003 has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" of the International Organization for Standardization (ISO) and has been taken over as CEN ISO/TR 16060:2014 by Technical Committee CEN/TC 121 "Welding and allied processes" the secretariat of which is held by DIN.

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### ISO/TR 16060

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## Destructive tests on welds in metallic materials — Etchants for macroscopic and microscopic examination

Essais destructifs des soudures sur matériaux métalliques — Réactifs pour examens macroscopique et microscopique



#### ISO/TR 16060:2003(E)

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#### **Foreword**

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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.

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ISO/TR 16060 was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 5, *Testing and inspection of welds*.

## Destructive tests on welds in metallic materials — Etchants for macroscopic and microscopic examination

#### 1 Scope

This Technical Report gives a non-exhaustive list of etchants that can be used for the macroscopic and microscopic examination of welds in accordance with ISO 17639 for the following groups of materials:

- carbon steels and low-alloy steels;
- stainless steels;
- nickel and nickel alloys;
- titanium and titanium alloys;
- copper and copper alloys;
- aluminium and aluminium alloys.

#### 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 17639, Destructive tests on welds in metallic materials — Macroscopic and microscopic examination of welds

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