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Third edition
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Metallic materials — Wire — Reverse torsion test

Matériaux métalliques — Fils — Essai de torsion alternée

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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).

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For an explanation of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 164, *Mechanical testing of metals*, Subcommittee SC 2, *Ductility testing*.

This third edition cancels and replaces the second edition (ISO 9649:2016), which has been technically revised.

The main changes are as follows:

— a specification has been added at the end of 9.2;

— a specification has been added at the end of Clause 10 [See g)].

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Metallic materials — Wire — Reverse torsion test

1 Scope

This document specifies a method for determining the ability of metallic wire, of diameter dimension from 0,3 mm to 10,0 mm inclusive, to undergo plastic deformation during reverse torsion. This test is used to detect surface defects, as well as to assess ductility.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

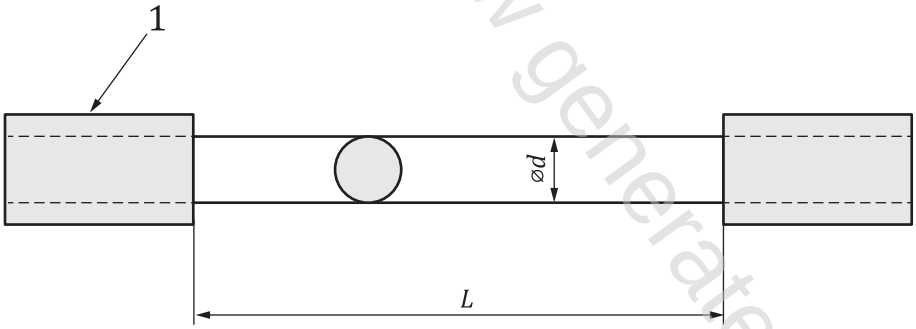
ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Symbols and designations

The symbols and designations used in the reverse torsion test of wires are shown in Figure 1 and specified in Table 1.



Key

1 grip

Figure 1 — Symbols and designations

Table 1 — Symbols and designations

Symbol	Designation	Unit
d	Diameter of a round wire	mm
L	Free length between grips	mm
N_1	Number of turns in one direction	—
N_2	Number of turns in the opposite direction	—