

This is a preview of "BS ISO 9649:2016". [Click here to purchase the full version from the ANSI store.](#)

BS ISO 9649:2016



BSI Standards Publication

Metallic materials — Wire — Reverse torsion test

bsi.

This is a preview of "BS ISO 9649:2016". [Click here to purchase the full version from the ANSI store.](#)

This British Standard is the UK implementation of ISO 9649:2016.

The UK participation in its preparation was entrusted to Technical Committee ISE/101/2, Ductility 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 2016. Published by BSI Standards Limited 2016

ISBN 978 0 580 85214 5

ICS 77.040.10

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 31 May 2016.

Amendments issued since publication

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

This is a preview of "BS ISO 9649:2016". [Click here to purchase the full version from the ANSI store.](#)

Second edition
2016-05-15

Metallic materials — Wire — Reverse torsion test

Matériaux métalliques — Fils — Essai de torsion alternée



Reference number
ISO 9649:2016(E)

© ISO 2016

This is a preview of "BS ISO 9649:2016". Click here to purchase the full version from the ANSI store.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

This is a preview of "BS ISO 9649:2016". [Click here to purchase the full version from the ANSI store.](#)

Contents

Page

Foreword	iv
1 Scope	1
2 Symbols and designations	1
3 Principle	1
4 Testing equipment	2
5 Test piece	2
6 Test conditions	3
7 Procedure	3
8 Test report	3
Bibliography	4

This is a preview of "BS ISO 9649:2016". [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.

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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 164, *Mechanical testing of metals*, Subcommittee SC 2, *Ductility testing*.

This second edition cancels and replaces the first edition (ISO 9649:1990), which has been technically revised.

This is a preview of "BS ISO 9649:2016". Click here to purchase the full version from the ANSI store.

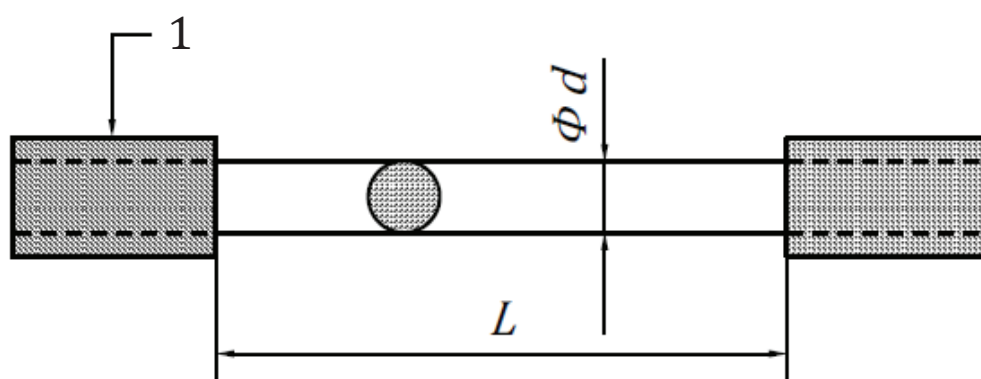
Metallic materials — Wire — Reverse torsion test

1 Scope

This International Standard 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 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 — Reverse torsion test of wires

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	—

3 Principle

A test piece of wire is twisted a specified number of turns through 360° around its own axis in one direction, and then a specified number of turns through 360° in the opposite direction.