AS 2505.5:2026
ISO 7800:2012

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# Metallic materials

## Method 5: Wire — Simple torsion test (ISO 7800:2012, IDT)



This Australian Standard® was prepared by MT-006, Mechanical Testing Of Metals. It was approved on behalf of Standards Australia's Standards Development and Accreditation Committee on 10 December 2025.

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Australian Pipelines and Gas Association
Bureau of Steel Manufacturers of Australia
Materials Australia
National Association of Testing Authorities Australia
University of Technology Sydney
Weld Australia

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# How to read this Standard

This page explains the meaning of the language and structure of this Standard.

Refer to Standards Australia's Standardisation Guide 006 for more details about drafting rules.

Australian and Australian/New Zealand Standards are voluntary unless they are referenced in legislation or called up in contracts.

**Requirements**

To conform to a Standard, all requirements in the Standard need to be met.

A requirement is any statement in the Standard which uses the word "shall".

**Recommendations, permissions and possibilities**

The following words are commonly used in Standards, but statements using them do not have to be followed to conform to the Standard:

(a) "should" means that something is recommended.

(b) "may" means that something is permitted.

(c) "can" means that something is possible.

**Structure of Standards**

A Standard always has the following parts:

(i) The Preface states who developed the Standard, what the Standard is aiming to do, and how it relates to other documents.

(ii) The Scope states what the Standard is about, what it covers and what it does not cover.

(iii) The Normative references clause lists other documents that are referenced in the Standard as part of requirements.

(iv) The Terms and definitions clause defines important terms to help with understanding the Standard.

A Standard may also include other parts, such as the following:

(1) A normative appendix sets additional requirements that need to be conformed to.

(2) An informative appendix provides additional information or guidance. They usually do not contain requirements. If an informative appendix does contain requirements, the Standard will explain when those requirements apply.

(3) A Bibliography lists documents referenced in the Standard but not as part of requirements.

Many Standards include notes. Notes provide recommendations and/or guidance only. They never contain requirements.

# Preface

This Standard was prepared by the Standards Australia Committee MT-006, Mechanical Testing Of Metals to supersede AS 2505.5:2002, *Metallic materials, Method 5: Wire - Simple torsion test*.

The objective of this document is to specify a method for determining the ability of metallic wire of diameter or characteristic dimension from 0,1 mm to 14 mm to undergo plastic deformation during simple torsion in one direction.

This document is identical to, and has been reproduced from, ISO 7800:2012, *Metallic materials — Wire — Simple torsion test.*

As this document has been reproduced from an international document, the following apply:

(a) In the source text “this International Standard” is to be read as “this document”.

(b) A comma is to be read as a full point when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

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.

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.

ISO 7800 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 7800:2003), which has been technically revised.

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# Australian Standard®

# Metallic materials

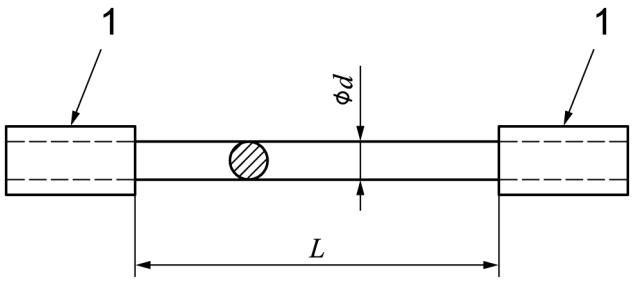
## Method 5: Wire — Simple torsion test (ISO 7800:2012, IDT)

## 1 Scope

This International Standard specifies a method for determining the ability of metallic wire of diameter or characteristic dimension from 0,1 mm to 14 mm to undergo plastic deformation during simple torsion in one direction.

## 2 Symbols and designations

The symbols and designations used in the simple torsion test of round wire and shaped wire are shown in Figure 1 and Figure 2, respectively, and listed in Table 1.




**Key**

1 grip

**Figure 1 — Round wire**

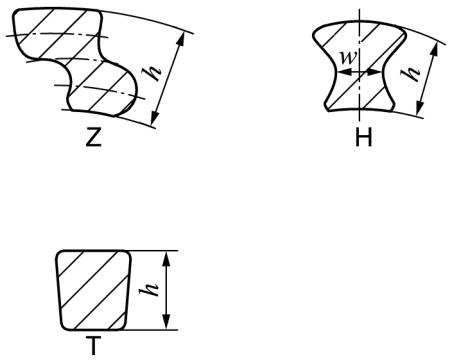



**Figure 2 — Typical shaped wire section**

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