

STN	Kovové materiály Skúška lámavosti (ISO 7438: 2020)	STN EN ISO 7438 42 0401
------------	---	---

Metallic materials - Bend test (ISO 7438:2020)

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

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 04/21

Obsahuje: EN ISO 7438:2020, ISO 7438:2020

Oznámením tejto normy sa ruší
STN EN ISO 7438 (42 0401) z augusta 2016

132564



EUROPEAN STANDARD

EN ISO 7438

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2020

ICS 77.040.10

Supersedes EN ISO 7438:2016

English Version

Metallic materials - Bend test (ISO 7438:2020)Matériaux métalliques - Essai de pliage (ISO
7438:2020)Metallische Werkstoffe - Biegeversuch (ISO
7438:2020)

This European Standard was approved by CEN on 8 August 2020.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

EN ISO 7438:2020 (E)

Contents	Page
European foreword.....	3

European foreword

This document (EN ISO 7438:2020) has been prepared by Technical Committee ISO/TC 164 "Mechanical testing of metals" in collaboration with Technical Committee CEN/TC 459/SC 1 "Test methods for steel (other than chemical analysis)" the secretariat of which is held by AFNOR.

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 April 2021, and conflicting national standards shall be withdrawn at the latest by April 2021.

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.

This document supersedes EN ISO 7438:2016.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 7438:2020 has been approved by CEN as EN ISO 7438:2020 without any modification.

INTERNATIONAL STANDARD

ISO 7438

Fourth edition
2020-10

Metallic materials — Bend test

Matériaux métalliques — Essai de pliage



Reference number
ISO 7438:2020(E)

© ISO 2020

ISO 7438:2020(E)**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2020

All rights reserved. Unless otherwise specified, or required in the context of its implementation, 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
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols, designations and units	1
5 Principle	2
6 Test equipment	2
6.1 General.....	2
6.2 Bending device with supports and a former.....	4
6.3 Bending device with a V-block.....	4
6.4 Bending device with a clamp.....	4
7 Test piece	4
7.1 General.....	4
7.2 Edges of rectangular test pieces.....	4
7.3 Width of the test piece.....	5
7.4 Thickness of the test piece.....	5
7.5 Test pieces from forgings, castings and semi-finished products.....	5
7.6 Agreement for test pieces of greater thickness and width.....	5
7.7 Length of the test piece.....	5
8 Procedure	6
9 Interpretation of results	7
10 Test report	7
Annex A (informative) Determination of the bend angle from the measurement of the displacement of the former	8
Annex B (normative) Bend test at plane strain conditions	9
Bibliography	13

ISO 7438:2020(E)

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 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*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 459, *ECISS – European Committee for Iron and Steel Standardization*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO 7438:2016), which has been technically revised.

The main change compared to the previous edition is the addition of new [Annex B](#), describing bending test at plane strain condition.

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 — Bend test

1 Scope

This document specifies a method for determining the ability of metallic materials to undergo plastic deformation in bending.

This document applies to test pieces taken from metallic products, as specified in the relevant product standard. It is not applicable to certain materials or products, for example tubes in full section or welded joints, for which other standards exist.

2 Normative references

There are no normative references in this document.

koniec náhľadu – text ďalej pokračuje v platenej verzii STN