ICS 21.060.10 SLOVENSKÁ TECHNICKÁ NORMA Máj 2023

STN	**Spojovacie súčiastky Tepelne spracované závitorezné skrutky Mechanické a fyzikálne vlastnosti (ISO 2702: 2022)**	**STN EN ISO 2702 02 1220**

Fasteners - Heat treated tapping screws - Mechanical and physical properties (ISO 2702:2022)

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. 04/23

Obsahuje: EN ISO 2702:2022, ISO 2702:2022

Oznámením tejto normy sa ruší
STN EN ISO 2702 (02 1220) z novembra 2011

136627

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 2702

December 2022

ICS 21.060.10

Supersedes EN ISO 2702:2011

English Version

Fasteners - Heat treated tapping screws - Mechanical and physical properties (ISO 2702:2022)

Fixations - Vis à tôle traitées thermiquement - Caractéristiques mécaniques et physiques (ISO 2702:2022)

Mechanische Verbindungselemente - Wärmebehandelte Blechschrauben - Mechanische und physikalische Eigenschaften (ISO 2702:2022)

This European Standard was approved by CEN on 5 December 2022.

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, Türkiye 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

Ref. No. EN ISO 2702:2022 E

Contents

Page

European foreword

This document (EN ISO 2702:2022) has been prepared by Technical Committee ISO/TC 2 "Fasteners" in collaboration with Technical Committee CEN/TC 185 “Fasteners” the secretariat of which is held by BSI.

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 June 2023, and conflicting national standards shall be withdrawn at the latest by June 2023.

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 2702:2011.

Any feedback and questions on this document should be directed to the users’ national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

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, Türkiye and the United Kingdom.

Endorsement notice

The text of ISO 2702:2022 has been approved by CEN as EN ISO 2702:2022 without any modification.

INTERNATIONAL STANDARD

ISO 2702

Fourth edition
2022-12

Fasteners — Heat treated tapping screws — Mechanical and physical properties

Fixations — Vis à tôle traitées thermiquement — Caractéristiques mécaniques et physiques

Reference number
ISO 2702:2022(E)

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

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 2, *Fasteners*, Subcommittee SC 13, *Fasteners with non-metric thread*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 185, *Threaded and nonthreaded mechanical fasteners and accessories*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO 2702:2011), which has been technically revised.

The main changes are as follows:

— document newly structured with regard to requirements and test methods;

— new Table 1 for mechanical and physical properties and related test methods (see 5.1)*;*

— maximum case-hardened depth increased to 0,12 mm for ST2,2 and ST2,6 (see 5.3)*;*

— maximum core hardness changed from 370 HV back to 390 HV and core hardness test specified more precisely (see 5.4 and 6.4);

— new clauses for ductility and ductility test added (see 5.8 and 6.8);

— test method for case-hardened depth determination modified (see 6.3);

— torsional test specified more precisely (see 6.7);

— new Clause 7 for inspection added*;*

— new Clause 8 for marking and labelling added.

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.

INTERNATIONAL STANDARD **ISO 2702:2022(E)**

Fasteners — Heat treated tapping screws — Mechanical and physical properties

1 Scope

This document specifies the mechanical and physical properties of heat treated tapping screws made of steel, with thread sizes ST2,2 to ST9,5 in accordance with ISO 1478, when tested at the ambient temperature range of 10 °C to 35 °C, and the related test methods.

Tapping screws are designed to form mating threads in sheet metals, without their own threads being deformed. Tapping screws are not intended to be pretensioned by design, even though they can experience varying degrees of low-level tensile stress after installation.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1478, *Tapping screws thread*

ISO 1891-4, *Fasteners — Vocabulary — Part 4: Control, inspection, delivery, acceptance and quality*

ISO 6507-1, *Metallic materials — Vickers hardness test — Part 1: Test method*

ISO 16228, *Fasteners — Types of inspection documents*