Destructive tests on welds in metallic materials - Hardness testing of narrow joints welded by laser and electron beam (Vickers and Knoop hardness tests) (ISO 22826:2005)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 22826:2021 sisaldab Euroopa standardi EN ISO 22826:2021 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 22826:2021 consists of the English text of the European standard EN ISO 22826:2021.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 03.03.2021.	Date of Availability of the European standard is 03.03.2021.
Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 25.160.40

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 22826

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English Version

Destructive tests on welds in metallic materials - Hardness testing of narrow joints welded by laser and electron beam (Vickers and Knoop hardness tests) (ISO 22826:2005)

Essais destructifs des soudures sur matériaux métalliques - Essais de dureté sur joints étroits soudés par faisceau d'électrons et faisceau laser (Essais de dureté Vickers et Knoop) (ISO 22826:2005)

Zerstörende Prüfung von Schweißungen an metallischen Werkstoffen - Härteprüfung an durch Laser- und Elektrostrahleschweißung hergestellten Schweißungen (Vickers und Knoop Härteprüfung) (ISO 22826:2005)

This European Standard was approved by CEN on 15 February 2021.

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 22826:2021 E

European foreword

The text of ISO 22826:2005 has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 22826:2021 by Technical Committee CEN/TC 121 "Welding and allied processes" the secretariat of which is held by DIN.

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 September 2021, and conflicting national standards shall be withdrawn at the latest by September 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

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 22826:2005 has been approved by CEN as EN ISO 22826:2021 without any modification.

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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 22826 was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 5, *Testing and inspection of welds*.

Introduction

Requests for official interpretation of any aspect of this International Standard should be directed to the Secretariat of ISO/TC 44/SC 5 via your national standards body. A complete listing of these bodies can be found at www.iso.org

Destructive tests on welds in metallic materials — Hardness testing of narrow joints welded by laser and electron beam (Vickers and Knoop hardness tests)

1 Scope

This International Standard specifies the requirements for hardness testing of transverse sections of narrow laser and electron beam welded joints in metallic materials. It covers Vickers and Knoop hardness tests in accordance with ISO 6507-1 and ISO 4545, respectively, with test forces of 0,098 N to just under 98 N (HV 0,01 to just under HV 10) for the Vickers hardness test and test forces up to and including 9,8 N (just under HK 1) for the Knoop hardness test.

This International Standard is applicable to welds made with or without filler wire. It may not be applicable to the testing of wider hybrid laser/arc welds.

International Standards for hardness testing of welds without a narrow profile are ISO 9015-1 and ISO 9015-2.

2 Normative references

The following referenced documents are indispensable for the application 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 4545, *Metallic materials — Hardness test — Knoop test*

ISO 4546, *Metallic materials — Hardness test — Verification of Knoop hardness testing machines*

ISO 4547, *Metallic materials — Hardness test — Calibration of standardized blocks to be used for Knoop hardness testing machines*

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

ISO 6507-2:—[1)], *Metallic materials — Vickers hardness test — Part 2: Verification and calibration of testing machines*

ISO 6507-3:—[2)], *Metallic materials — Vickers hardness test — Part 3: Calibration of reference blocks*

ISO 10250, *Metallic materials — Hardness testing — Tables of Knoop hardness values for use in tests made on flat surfaces*

ISO/TR 16060, *Destructive tests on welds in metallic materials — Etchants for macroscopic and microscopic examination*

1) To be published. (Revision of ISO 6507-2:1997)

2) To be published. (Revision of ISO 6507-3:1997)