
Mehansko spajanje - Porušitveno preskušanje spojev - Mere primerkov in preskusni postopki za natezno strižno preskušanje enojnih spojev (ISO 12996:2013)

Mechanical joining - Destructive testing of joints - Specimen dimensions and test procedure for tensile shear testing of single joints (ISO 12996:2013)

Mechanisches Fügen - Zerstörende Prüfung von Verbindungen - Probenmaße und Prüfverfahren für die Scherzugprüfung von Einpunktproben (ISO 12996:2013)

Assemblage mécanique - Essais destructifs des assemblages - Dimensions des éprouvettes et mode opératoire d'essai pour les essais de traction-cisaillement des assemblages simples (ISO 12996:2013)

Ta slovenski standard je istoveten z: EN ISO 12996:2013

ICS:

25.160.40 Varjeni spoji in vari Welded joints

SIST EN ISO 12996:2013

en,fr

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EUROPEAN STANDARD
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EUROPÄISCHE NORM

EN ISO 12996

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ICS 25.160.40; 25.160.10

English Version

Mechanical joining - Destructive testing of joints - Specimen dimensions and test procedure for tensile shear testing of single joints (ISO 12996:2013)

Assemblage mécanique - Essais destructifs des jonctions - Dimensions des éprouvettes et procédures d'essai pour essais de traction-cisaillement des jonctions uniques (ISO 12996:2013)

Mechanisches Fügen - Zerstörende Prüfung von Verbindungen - Probenmaße und Prüfverfahren für die Scherzugprüfung von Einpunktproben (ISO 12996:2013)

This European Standard was approved by CEN on 15 June 2013.

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Foreword

This document (EN ISO 12996:2013) has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" in collaboration with 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of an identical text or by endorsement, at the latest by January 2014, and conflicting national standards shall be withdrawn at the latest by January 2014.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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INTERNATIONAL STANDARD

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Mechanical joining — Destructive testing of joints — Specimen dimensions and test procedure for tensile shear testing of single joints

*Assemblage mécanique — Essais destructifs des assemblages —
Dimensions des éprouvettes et procédures d'essai pour essais de
traction-cisaillement des jonctions uniques*

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ISO 12996:2013(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, www.iso.org/directives.

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

The committee responsible for this document is ISO/TC 44, *Welding and allied processes*, Subcommittee SC 6, *Resistance welding and allied mechanical joining*.

Requests for official interpretations of any aspect of this International Standard should be directed to the Secretariat of ISO/TC 44/SC 6 via your national standards body. A complete listing of these bodies can be found at www.iso.org.

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Mechanical joining — Destructive testing of joints — Specimen dimensions and test procedure for tensile shear testing of single joints

1 Scope

This International Standard specifies the geometry of the test specimens and the procedure for the tensile shear testing of single mechanical joints on single and multilayer specimens up to a single sheet thickness of 4,5 mm.

The term sheet, as used in this International Standard, includes extrusions and cast materials.

The purpose of the tensile shear test is to determine the mechanical characteristics and failure modes of the joints made with the different methods.

This International Standard does not apply to civil engineering applications such as metal building and steel construction which are covered by other applicable standards.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2768-1, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

ISO 7500-1, *Metallic materials — Verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Verification and calibration of the force-measuring system*

3 Terms and definitions

For the purpose of this document, the following terms and definitions apply.

3.1 tensile shear force

F_{\max}
maximum force recorded in the test

Note 1 to entry: If required, further characteristic data, e.g. $F_{p0,2}$ (see 3.2), stiffness of the specimen c (see 3.7) or slope of the force curve, energy dissipation W (see 3.8), can be determined according to the shear diagram given in Figure 4.

3.2 elastic force limit

F_e
force where predetermined plastic or permanent displacement of the test specimen occurs

3.3 slippage force

F_s
force at which a relative movement of the joined parts is registered