

Požiadavky na kvalitu pri tavnom zváraní kovových materiálov. Časť 5: Dokumenty potrebné na dosiahnutie zhody s požiadavkami na kvalitu podľa ISO 3834-2, ISO 3834-3 alebo ISO 3834-4 (ISO 3834-5:2015).

STN EN ISO 3834-5

05 0410

Quality requirements for fusion welding of metallic materials - Part 5: Documents with which it is necessary to conform to claim conformity to the quality requirements of ISO 3834-2, ISO 3834-3 or ISO 3834-4 (ISO 3834-5:2015)

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. 12/15

Obsahuje: EN ISO 3834-5:2015, ISO 3834-5:2015

Oznámením tejto normy sa ruší STN EN ISO 3834-5 (05 0410) z júla 2006

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## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

### **EN ISO 3834-5**

June 2015

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Supersedes EN ISO 3834-5:2005

#### **English Version**

Quality requirements for fusion welding of metallic materials -Part 5: Documents with which it is necessary to conform to claim conformity to the quality requirements of ISO 3834-2, ISO 3834-3 or ISO 3834-4 (ISO 3834-5:2015)

Exigences de qualité en soudage par fusion des matériaux métalliques - Partie 5: Documents auxquels il est nécessaire de se conformer pour déclarer la conformité aux exigences de qualité de l'ISO 3834-2, l'ISO 3834-3 ou l'ISO 3834-4 (ISO 3834-5:2015)

Qualitätsanforderungen für das Schmelzschweißen von metallischen Werkstoffen - Teil 5: Dokumente, deren Anforderungen erfüllt werden müssen, um die Übereinstimmung mit den Anforderungen nach ISO 3834-2, ISO 3834-3 oder ISO 3834-4 nachzuweisen (ISO 3834-5:2015)

This European Standard was approved by CEN on 16 April 2015.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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#### EN ISO 3834-5:2015 (E)

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#### **European foreword**

This document (EN ISO 3834-5:2015) 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 December 2015, and conflicting national standards shall be withdrawn at the latest by December 2015.

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.

This document supersedes EN ISO 3834-5:2005.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

#### **Endorsement notice**

The text of ISO 3834-5:2015 has been approved by CEN as EN ISO 3834-5:2015 without any modification.

# INTERNATIONAL STANDARD

ISO 3834-5

Second edition 2015-06-15

# Quality requirements for fusion welding of metallic materials —

#### Part 5:

Documents with which it is necessary to conform to claim conformity to the quality requirements of ISO 3834-2, ISO 3834-3 or ISO 3834-4

Exigences de qualité en soudage par fusion des matériaux métalliques —

Partie 5: Documents auxquels il est nécessaire de se conformer pour déclarer la conformité aux exigences de qualité de l'ISO 3834-2, l'ISO 3834-3 ou l'ISO 3834-4



ISO 3834-5:2015(E)



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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.

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 <a href="www.iso.org/directives">www.iso.org/directives</a>).

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 <a href="https://www.iso.org/patents">www.iso.org/patents</a>).

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

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 44, Welding and allied processes, SC 10, Unification of requirements in the field of metal welding.

This second edition cancels and replaces the first edition (ISO 3834-5:2005), which has been technically revised. It also incorporates the Corrigendum ISO 3834-5:2005/Cor 1:2007.

ISO 3834 consists of the following parts, under the general title *Quality requirements for fusion welding of metallic materials*:

- Part 1: Criteria for the selection of the appropriate level of quality requirements
- Part 2: Comprehensive quality requirements
- Part 3: Standard quality requirements
- Part 4: Elementary quality requirements
- Part 5: Documents with which it is necessary to conform to claim conformity to the quality requirements of ISO 3834-2, ISO 3834-3 or ISO 3834-4
- Part 6: Guidelines on implementing ISO 3834 [Technical Report]

Requests for official interpretations of any aspect of this part of ISO 3834 should be directed to the Secretariat of ISO/TC 44/SC 10 via your national standards body. A complete listing of which can be found at <a href="http://www.iso.org">http://www.iso.org</a>.

# Quality requirements for fusion welding of metallic materials —

#### Part 5:

Documents with which it is necessary to conform to claim conformity to the quality requirements of ISO 3834-2, ISO 3834-3 or ISO 3834-4

#### 1 Scope

This part of ISO 3834 specifies the International Standards with which it is necessary to conform to claim conformity to the quality requirements of ISO 3834-2, ISO 3834-3, or ISO 3834-4. It can only be used in conjunction with ISO 3834-2, ISO 3834-3, or ISO 3834-4.

# 2 Documents with which it is necessary to conform to claim conformity to the quality requirements of ISO 3834-2, ISO 3834-3, or ISO 3834-4

#### 2.1 General

Conformity to the quality requirements of ISO 3834-2, ISO 3834-3, or ISO 3834-4 shall be claimed by a manufacturer in accordance with one or more of the following options:

- a) adopting the ISO documents listed in 2.2;
- b) adopting other documents that provide technically equivalent conditions to the ISO documents listed in 2.2; it is the responsibility of the manufacturer to demonstrate that the alternative standards selected have technically equivalent conditions to those in the corresponding International Standards when documents specified in 2.2 are replaced;
- c) adopting different supporting standards to those listed in 2.2, where these are required in application standards used by the manufacturers.

#### 2.2 ISO documents

The following ISO documents are indispensable for the application of ISO 3834-2, ISO 3834-3, or ISO 3834-4, as specified in 2.1. The latest edition of the referenced document (including any amendments) applies.

ISO 9606-1, Qualification testing of welders — Fusion welding — Part 1: Steels

ISO 9606-2, Qualification test of welders — Fusion welding — Part 2: Aluminium and aluminium alloys

ISO 9606-3, Approval testing of welders — Fusion welding — Part 3: Copper and copper alloys

ISO 9606-4, Approval testing of welders — Fusion welding — Part 4: Nickel and nickel alloys

ISO 9606-5, Approval testing of welders — Fusion welding — Part 5: Titanium and titanium alloys, zirconium and zirconium alloys

ISO 9712, Non-destructive testing — Qualification and certification of NDT personnel

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- ISO 10863, Non-destructive testing of welds Ultrasonic testing Use of time-of-flight diffraction technique (TOFD)
- ISO 13588, Non-destructive testing of welds Ultrasonic testing Use of automated phased array technology
- ISO 13916, Welding Guidance on the measurement of preheating temperature, interpass temperature and preheat maintenance temperature
- ISO 14555, Welding Arc stud welding of metallic materials
- ISO 14731, Welding coordination Tasks and responsibilities
- ISO 14732, Welding personnel Qualification testing of welding operators and weld setters for mechanized and automatic welding of metallic materials
- ISO 15607, Specification and qualification of welding procedures for metallic materials General rules
- ISO 15609-1, Specification and qualification of welding procedures for metallic materials Welding procedure specification Part 1: Arc welding
- ISO 15609-2, Specification and qualification of welding procedures for metallic materials Welding procedure specification Part 2: Gas welding
- ISO 15609-3, Specification and qualification of welding procedures for metallic materials Welding procedure specification Part 3: Electron beam welding
- ISO 15609-4, Specification and qualification of welding procedures for metallic materials Welding procedure specification Part 4: Laser beam welding
- ISO 15609-6, Specification and qualification of welding procedures for metallic materials Welding procedure specification Part 6: Laser-arc hybrid welding
- ISO 15610, Specification and qualification of welding procedures for metallic materials Qualification based on tested welding consumables
- ISO 15611, Specification and qualification of welding procedures for metallic materials Qualification based on previous welding experience
- ISO 15612, Specification and qualification of welding procedures for metallic materials Qualification by adoption of a standard welding procedure
- ISO 15613, Specification and qualification of welding procedures for metallic materials Qualification based on pre-production welding test
- ISO 15614-1, Specification and qualification of welding procedures for metallic materials Welding procedure test Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys
- ISO 15614-2, Specification and qualification of welding procedures for metallic materials Welding procedure test Part 2: Arc welding of aluminium and its alloys
- ISO 15614-3, Specification and qualification of welding procedures for metallic materials Welding procedure test Part 3: Fusion welding of non-alloyed and low-alloyed cast irons
- ISO 15614-4, Specification and qualification of welding procedures for metallic materials Welding procedure test Part 4: Finishing welding of aluminium castings
- ISO 15614-5, Specification and qualification of welding procedures for metallic materials Welding procedure test Part 5: Arc welding of titanium, zirconium and their alloys
- ISO 15614-6, Specification and qualification of welding procedures for metallic materials Welding procedure test Part 6: Arc and gas welding of copper and its alloys

- ISO 15614-7, Specification and qualification of welding procedures for metallic materials Welding procedure test Part 7: Overlay welding
- ISO 15614-8, Specification and qualification of welding procedures for metallic materials Welding procedure test Part 8: Welding of tubes to tube-plate joints
- ISO 15614-10, Specification and qualification of welding procedures for metallic materials Welding procedure test Part 10: Hyperbaric dry welding
- ISO 15614-11, Specification and qualification of welding procedures for metallic materials Welding procedure test Part 11: Electron and laser beam welding
- ISO 15614-14, Specification and qualification of welding procedures for metallic materials Welding procedure test Part 14: Laser-arc hybrid welding of steels, nickel and nickel alloys
- ISO 15618-1, Qualification testing of welders for underwater welding Part 1: Diver-welders for hyperbaric wet welding
- ISO 15618-2, Qualification testing of welders for underwater welding Part 2: Diver-welders and welding operators for hyperbaric dry welding
- ISO 17635, Non-destructive testing of welds General rules for metallic materials
- ISO 17636-1, Non-destructive testing of welds Radiographic testing Part 1: X- and gamma-ray techniques with film
- ISO 17636-2, Non-destructive testing of welds Radiographic testing Part 2: X- and gamma-ray techniques with digital detectors
- ISO 17637, Non-destructive testing of welds Visual testing of fusion-welded joints
- ISO 17638, Non-destructive testing of welds Magnetic particle testing
- ISO 17639, Destructive tests on welds in metallic materials Macroscopic and microscopic examination of welds
- ISO 17640, Non-destructive testing of welds Ultrasonic testing Techniques, testing levels, and assessment
- ISO 17662, Welding Calibration, verification and validation of equipment used for welding, including ancillary activities
- ISO 17663, Welding Quality requirements for heat treatment in connection with welding and allied processes
- ISO 22825, Non-destructive testing of welds Ultrasonic testing Testing of welds in austenitic steels and nickel-based alloys
- ISO/TR 17671-2, Welding Recommendations for welding of metallic materials Part 2: Arc welding of ferritic steels
- ISO/TR 17844, Welding Comparison of standardised methods for the avoidance of cold cracks

### koniec náhľadu – text ďalej pokračuje v platenej verzii STN