

**Keevitajate atesteerimine. Sulakeevitus.
Osa 2: Alumiinium ja
alumiiniumsulamid**

Qualification test of welders - Fusion welding - Part
2: Aluminium and aluminium alloys

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 9606-2:2005 sisaldab Euroopa standardi EN ISO 9606-2:2004 ingliskeelset teksti. Käesolev dokument on jõustatud 22.02.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 9606-2:2005 consists of the English text of the European standard EN ISO 9606-2:2004. This document is endorsed on 22.02.2005 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.
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Käsitlusala: This standard defines the qualification test of welders for the fusion welding of aluminium and aluminium alloys (see EN 1418). It provides a set of technical rules for a systematic qualification test of the welder, and enables such qualifications to be uniformly accepted independently of the type of product, location and examiner/examining body	Scope: This standard defines the qualification test of welders for the fusion welding of aluminium and aluminium alloys (see EN 1418). It provides a set of technical rules for a systematic qualification test of the welder, and enables such qualifications to be uniformly accepted independently of the type of product, location and examiner/examining body
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Võtmesõnad:

English version

Qualification testing of welders

Fusion welding

Part 2: Aluminium and aluminium alloys

(ISO 9606-2:2004)

Epreuve de qualification des sou-
deurs – Soudage par fusion – Partie 5:
Aluminium et alliages d'aluminium
(ISO 9606-2:2004)

Prüfung von Schweißern – Schmelz-
schweißen – Teil 2: Aluminium und
Aluminiumlegierungen
(ISO 9606-2:2004)

This European Standard was approved by CEN on 2004-09-23.

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 Management Centre or to any CEN member.

The European Standards exist 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 Management Centre has the same status as the official versions.

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

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

This document (EN ISO 9606-2:2004) has been prepared by Technical Committee CEN/TC 121 "Welding", the secretariat of which is held by DIN, in collaboration with Technical Committee ISO/TC 44 "Welding and allied processes".

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 2005, and conflicting national standards shall be withdrawn at the latest by June 2005.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

This document supersedes EN 287-2:1992.

This series of standards consists of the following parts, under the general title *Qualification test of welders — Fusion welding*:

- EN 287-1: Steels
- EN ISO 9606-2: Aluminium and aluminium alloys
- EN ISO 9606-3: Copper and copper alloys¹⁾
- EN ISO 9606-4: Nickel and nickel alloys¹⁾
- EN ISO 9606-5: Titanium and titanium alloys, zirconium and zirconium alloys¹⁾

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

Introduction

The ability of a welder to follow verbal or written instructions and verification of a welder's skills are important factors in ensuring the quality of the welded product.

The testing of a welder's skill in accordance with this document depends on welding techniques and conditions used in which uniform rules are complied with, and standard test pieces are used.

The principle of this document is that a qualification test qualifies the welder not only for the conditions used in the test, but also for all joints which are considered to weld easier on the presumption that the welder has received a particular training and/or has industrial practice within the range of qualification.

The qualification test can be used to qualify a welding procedure and a welder provided that all the relevant requirements, e.g. test piece dimensions, are satisfied (see EN ISO 15614-2).

Qualifications in accordance with EN 287-2 or ISO 9606-2 existing at the date of publication of this document are, at the end of their period of validity, to be interpreted in accordance with the requirements of this standard.

Requests for official interpretations of any aspect of this standard should be directed to the Secretariat of ISO/TC 44/SC 11 via your national standards body, a complete listing which can be found at www.iso.org.

¹⁾ The general title of these documents is *Approval testing of welders - Fusion welding*

1 Scope

This document specifies the requirements for qualification of welders for fusion welding of aluminium and aluminium alloys.

This document provides a set of technical rules for systematic qualification of welders which are independent of product type, location and examiner/examining body.

When qualifying welders, the emphasis is placed on the welder's ability to manually manipulate the welding torch and thereby produce a weld of acceptable quality.

The welding processes referred to in this document include those fusion welding processes which are designated as manual or partly mechanized welding. It does not qualify fully mechanized and automated welding processes (see EN 1418 or ISO 14732).

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.

EN 910, *Destructive tests on welds in metallic materials — Bend tests.*

EN 970, *Non-destructive examination of fusion welds — Visual examination.*

EN 1320, *Destructive tests on welds in metallic materials — Fracture test.*

EN 1321, *Destructive tests on welds in metallic materials — Macroscopic and microscopic examination of welds.*

EN 1418:1997, *Welding personnel — Approval testing of welding operators for fusion welding and resistance weld setters for fully mechanized and automatic welding of metallic materials.*

EN 1435, *Non-destructive examination of welds — Radiographic examination of welded joints.*

EN 30042, *Arc-welded joints in aluminium and its weldable alloys — Guidance on quality levels for imperfections (ISO 10042:1992).*

EN ISO 4063, *Welding and allied processes — Nomenclature of processes and reference numbers (ISO 4063:1998).*

EN ISO 6947, *Welds — Working positions — Definitions of angles of slope and rotation (ISO 6947:1993).*

EN ISO 15607:2003, *Specification and qualification of welding procedures for metallic materials — General rules (ISO 15607:2003).*

EN ISO 15609-1:2004, *Specification and qualification of welding procedures for metallic materials — Welding procedure specification — Part 1: Arc welding (ISO 15609-1:2004).*

EN 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 15614-2:2004).*

ISO 857-1, *Welding and allied processes — Vocabulary — Part 1: Metal welding processes.*

NOTE A list of ISO Standards conforming to these EN Standards is given in Annex ZB.