



SLOVENSKI STANDARD SIST EN ISO 15612:2004

01-november-2004

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Specification and qualification of welding procedures for metallic materials - Qualification by adoption of a standard welding procedure (ISO 15612:2004)

Anforderung und Qualifizierung von Schweißverfahren für metallische Werkstoffe - Qualifizierung durch Einsatz eines Standardschweißverfahrens (ISO 15612:2004)

Descriptif et qualification d'un mode opératoire de soudage pour les matériaux métalliques - Qualification par référence à un mode opératoire de soudage standard (ISO 15612:2004)

Ta slovenski standard je istoveten z: EN ISO 15612:2004

ICS:

25.160.10 Varilni postopki in varjenje Welding processes

SIST EN ISO 15612:2004 en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 15612

August 2004

ICS 25.160.10

Supersedes EN 288-7:1995

English version

Specification and qualification of welding procedures for metallic materials - Qualification by adoption of a standard welding procedure (ISO 15612:2004)

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This European Standard was approved by CEN on 16 January 2004.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of 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.

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Foreword

This document (EN ISO 15612:2004) 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 February 2005, and conflicting national standards shall be withdrawn at the latest by February 2005.

This document supersedes EN 288-7:1995.

Normative references to International Standards are listed in annex ZA.

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.

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EN ISO 15612:2004 (E)

Introduction

In EN ISO 15607, one of the methods of welding procedure qualification is by adoption of a standard welding procedure.

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1 Scope

This standard gives the necessary information to explain the requirements referenced in EN ISO 15607 about the qualification by adoption of a standard welding procedure, and establishes the conditions, limits and ranges of qualification necessary for the use of a standard welding procedure.

This standard gives the manufacturer the possibility to use welding procedures based on welding procedure tests performed by other organisations.

This standard is a part of a series of standards, details of this series are given in EN ISO 15607:2003, annex A.

The use of this standard can be restricted by an application standard or a specification.

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 287-1, *Qualification test of welders - Fusion welding - Part 1: Steels.*

EN 287-2, *Approval testing of welders — Fusion welding — Part 2: Aluminium and aluminium alloys.*

EN 719, *Welding coordination — Tasks and responsibilities.*

EN 729-1, *Quality requirements for welding — Fusion welding of metallic materials — Part 1: Guidelines for selection and use.*

EN 729-2, *Quality requirements for welding — Fusion welding of metallic materials — Part 2: Comprehensive quality requirements.*

EN 729-3, *Quality requirements for welding — Fusion welding of metallic materials — Part 3: Standard quality requirements.*

EN 729-4, *Quality requirements for welding — Fusion welding of metallic materials — Part 4: Elementary quality requirements.*

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

EN ISO 9606-3, *Approval testing of welders — Fusion welding — Part 3: Copper and copper alloys (ISO 9606-3:1999)*

EN ISO 9606-4, *Approval testing of welders — Fusion welding — Part 4: Nickel and nickel alloys. (ISO 9606-4:1999)*

EN ISO 9606-5, *Approval testing of welders — Fusion welding — Part 5: Titanium and titanium alloys, zirconium and zirconium alloys (ISO 9606-5:2000)*

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

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

EN ISO 15609-2, *Specification and qualification of welding procedures for metallic materials — Welding procedure specification — Part 2: Gas welding.* (ISO 15609-2:2001)

EN ISO 15609-3, *Specification and qualification of welding procedures for metallic materials — Welding procedure specification — Part 3: Electron beam welding.* (ISO 15609-3:2004)

EN ISO 15609-4, *Specification and qualification of welding procedures for metallic materials — Welding procedure specification — Part 4: Laser beam welding.* (ISO 15609-4:2004)

EN ISO 15614 (all parts), *Specification and qualification of welding procedures for metallic materials — Welding procedure test.*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN ISO 15607:2003 apply.

4 Preliminary welding procedure specification (pWPS)

The qualification by adoption of a standard welding procedure shall be based on a pWPS according to the appropriate part of EN ISO 15609. This pWPS shall specify the range for all the relevant parameters.

5 Qualification by adoption of the standard welding procedure**5.1 General**

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The qualification of the welding procedure shall be carried out by an examiner or an examiner body according to EN ISO 15607. It shall be verified that examination and testing have been carried out in accordance with the appropriate part of EN ISO 15614.

After qualification, the preliminary welding procedure specification will be considered as a standard welding procedure specification.

Changes outside the range of qualification given in the appropriate part of EN ISO 15614 as modified in 5.2 shall require a new qualification welding procedure.

The welding procedure shall be qualified by the manufacturer and if applicable, verified by an examiner or examining body in accordance with EN ISO 15607.

5.2 Parent metal

This standard is applicable for parent material groups defined in Table 1.

Table 1 — Applicable parent material groups

Parent material groups used for the qualification of the welding procedure	Range of qualification
1-1	1-1
1- 11	1 - 1 1 - 11 11 – 11
8 ^a	8 –8
21	21 –21
22.1 - 22.2	22.1 - 22.1 22.2 - 22.2 22.1 - 22.2
31 through 38 ^a	each group welded with compatible filler material
41 through 47 ^a	each group welded with compatible filler material
^a excluding those alloys which are extremely sensitive to hot cracking.	

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6 Use of a standard welding procedure

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6.1 General

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A standard welding procedure prepared and documented in accordance with clause 8 can be used without further tests providing the following requirements and limitations are observed.

6.2 Related to the user of a standard welding procedure

The user of a standard welding procedure is responsible for the appropriate selection and application of the standard welding procedure.

The use of a standard welding procedure requires welding coordination in accordance with EN 719 and that the user fulfils quality requirements in accordance with the appropriate part of EN 729.

6.3 Related to the welding equipment

The standard welding procedure is qualified for use in production with welding power sources and welding equipment having electrical and mechanical characteristics which are capable of achieving those used in preparing the test weld for qualification of the standard welding procedure as specified in the welding procedure specification WPS.

The equipment used during production shall permit control of all essential welding parameters.

6.4 Related to the personnel

A standard welding procedure shall only be used by welders or welding operators for mechanized equipment qualified in accordance with the relevant part of EN 287 or EN ISO 9606 or EN 1418.