Specification and qualification of welding procedures for metallic materials - Welding procedures specification - Part 3: Electron beam welding

Specification and qualification of welding procedures for metallic materials - Welding procedures specification - Part 3: Electron beam welding

EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO 15609-3:2004 sisaldab Euroopa standardi EN ISO 15609-3:2004 ingliskeelset teksti. Käesolev dokument on jõustatud 26.10.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 15609-3:2004 consists of the English text of the European standard EN ISO 15609-3:2004. This document is endorsed on 26.10.2004 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This standard specifies requirements for the content of welding procedure specifications for electron beam welding. This standard is part of a series of standards, details of this series are given in EN ISO 15607:2003, annex A. Variables listed in this standard are those influencing the quality and properties of the welded joint.	**Scope:** This standard specifies requirements for the content of welding procedure specifications for electron beam welding. This standard is part of a series of standards, details of this series are given in EN ISO 15607:2003, annex A. Variables listed in this standard are those influencing the quality and properties of the welded joint.

ICS 25.160.10

Võtmesõnad:

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 15609-3

August 2004

ICS 25.160.10

Supersedes EN ISO 9956-10 : 1996.

English version

Specification and qualification of welding procedures for metallic materials

Welding procedure specification
Part 3: Electron beam welding
(ISO 15609-3 : 2004)

Descriptif et qualification d'un mode opératoire de soudage pour les matériaux métalliques – Descriptif d'un mode opératoire de soudage – Partie 3: Soudage par faisceau d'électrons (ISO 15609-3 : 2004)

Anforderung und Qualifizierung von Schweißverfahren für metallische Werkstoffe – Schweißanweisung – Teil 3: Elektronenstrahlschweißen (ISO 15609-3 : 2004)

This European Standard was approved by CEN on 2004-01-16.

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

Management Centre: rue de Stassart 36, B-1050 Brussels

Ref. No. EN ISO 15609-3 : 2004 E

Contents

Foreword

This document (EN ISO 15609-3:2004) has been prepared by Technical Committee CEN /TC 121, "Welding", the secretariat of which is held by DIN, in collaboration with 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 ISO 9956-10:1996.

Annex A is informative.

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.

1 Scope

This standard specifies requirements for the content of welding procedure specifications for electron beam welding.

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

Variables listed in this standard are those influencing the quality and properties of the welded joint.

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 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).*

3 Terms and definitions

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

3.1
slope up
controlled increase of the beam power at the beginning of welding

3.2
slope down
controlled decrease of the beam power at the end of welding. The slope down region is the region on the workpiece in which the effects of slope down occur. It can consist of one or two areas, depending on the selected welding mode:

a) in full penetration welding:

   — a region where beam penetration is still complete;

   — a region where penetration is partial or decreasing.

b) in partial penetration welding:

   — a region where penetration decreases continuously.