

## **Welding - Recommendations for welding of metallic materials - Part 8: Welding of cast irons**

Welding - Recommendations for welding of metallic  
materials - Part 8: Welding of cast irons

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1011-8:2005 sisaldab Euroopa standardi EN 1011-8:2004 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 25.01.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1011-8:2005 consists of the English text of the European standard EN 1011-8:2004.</p> <p>This document is endorsed on 25.01.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b></p> <p>This draft European Standard specifies the requirements for fusion welding of unalloyed and low-alloy cast iron castings produced in accordance with - EN 1561, Founding Grey cast irons; - EN 1562, Founding Malleable cast irons; - EN 1563, Founding Spheroidal graphite cast irons</p>	<p><b>Scope:</b></p> <p>This draft European Standard specifies the requirements for fusion welding of unalloyed and low-alloy cast iron castings produced in accordance with - EN 1561, Founding Grey cast irons; - EN 1562, Founding Malleable cast irons; - EN 1563, Founding Spheroidal graphite cast irons</p>
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**Võtmesõnad:** cast iron, quali, specification (approval), specifications, testing, testing conditions, weld preparation, weldability, welded joints, welding, welding engineering, welding equipment, welding filler metals, welding procedure specification, welding processes, welds

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ICS 25.160.10

English version

**Welding - Recommendations for welding of metallic materials -  
Part 8: Welding of cast irons**

Soudage - Recommandations pour le soudage des  
matériaux métalliques - Partie 8: Soudage des fontes

Schweißen - Empfehlungen zum Schweißen metallischer  
Werkstoffe - Teil 8: Schweißen von Gusseisen

This European Standard was approved by CEN on 13 September 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 1011-8:2004) has been prepared by Technical Committee CEN/TC 190 "Foundry technology", 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 May 2005, and conflicting national standards shall be withdrawn at the latest by May 2005.

Within its programme of work, Technical Committee CEN/TC 190 requested CEN/TC 190/WG 5 "Welding of cast iron" to prepare the following standard:

EN 1011-8, *Welding — Recommendations for welding of metallic materials — Part 8: Welding of cast irons.*

This is one of a series of European Standards for requirements for fusion welding of metallic materials.

This European Standard, with the general title *Welding - Recommendations for welding of metallic materials*, is composed of the following parts:

- Part 1: General guidance for arc welding
- Part 2: Arc welding of ferritic steels
- Part 3: Arc welding of stainless steels
- Part 4: Arc welding of aluminium and aluminium alloys
- Part 5: Welding of clad steel
- Part 6: Laser beam welding
- Part 7: Electron beam welding
- Part 8: Welding of cast irons

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 document specifies the requirements for fusion welding of unalloyed and low-alloy cast iron castings produced in accordance with:

- EN 1561, *Founding — Grey cast irons*;
- EN 1562, *Founding — Malleable cast irons*;
- EN 1563, *Founding — Spheroidal graphite cast irons*.

This document does not apply to the joint welding of cast iron castings to other materials.

## 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 1011-1:1998, *Welding — Recommendations for welding of metallic materials — Part 1: General guidance for arc welding*.

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

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

NOTE Informative references to documents used in the preparation of this standard, and cited at the appropriate places in the text, are listed in the bibliography.

## 3 Terms and definitions

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

### 3.1

#### **production welding**

any welding carried out during manufacturing before final delivery to the end user

NOTE It includes joint welding and finishing welding (see 3.2 and 3.3).

### 3.2

#### **joint welding**

production welding used to assemble components together to obtain an integral unit

### 3.3

#### **finishing welding**

production welding carried out in order to ensure the agreed quality of the casting

### 3.4

#### **repair welding**

any welding carried out after final delivery of the casting to the end user

### 3.5

#### **homogeneous filler metal**

any filler metal which results in a deposited metal with the same type of microstructure as the parent metal