

Metallivalu. Tehnilised tarnetingimused. Osa 1: Üldinfo
Founding - Technical conditions of delivery - Part 1: General

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1559-1:2011 sisaldab Euroopa standardi EN 1559-1:2011 ingliskeelset teksti.

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English Version

Founding - Technical conditions of delivery - Part 1: General

Fonderie - Conditions techniques de fourniture - Partie 1:
Généralités

Gießereiwesen - Technische Lieferbedingungen - Teil 1:
Allgemeines

This European Standard was approved by CEN on 15 January 2011.

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Foreword

This document (EN 1559-1:2011) 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of an identical text or by endorsement, at the latest by August 2011, and conflicting national standards shall be withdrawn at the latest by August 2011.

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 1559-1:1997.

Annex B provides details of significant technical changes between this European Standard and the previous edition.

Within its programme of work, Technical Committee CEN/TC 190 requested CEN/TC 190/WG 1 “Technical conditions of delivery and cast iron designation” to revise EN 1559-1:1997.

EN 1559-1, *Founding — Technical conditions of delivery — Part 1: General*

This standard is one of a series of European Standards for technical delivery conditions for castings. The other standards in this series are:

- EN 1559-2, *Founding — Technical conditions of delivery — Part 2: Additional requirements for steel castings*
- EN 1559-3, *Founding — Technical conditions of delivery — Part 3: Additional requirements for iron castings*
- EN 1559-4, *Founding — Technical conditions of delivery — Part 4: Additional requirements for aluminium alloy castings*
- EN 1559-5, *Founding — Technical conditions of delivery — Part 5: Additional requirements for magnesium alloy castings*
- EN 1559-6, *Founding — Technical conditions of delivery — Part 6: Additional requirements for zinc alloy castings*

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

Introduction

This European Standard uses a system of identification for delivery conditions with the following structure:

- subclauses marked with a single dot (●) indicate that conditions shall be agreed at the time of enquiry and order;
- subclauses marked with two dots (●●) indicate that conditions may be agreed at the time of enquiry and order (optional);
- subclauses without dot marking are mandatory.

The purchaser specifies the requirements of the casting(s) to fulfil the intended use.

The manufacturer produces the casting(s) to the requirements stated.

It is recommended that full consultations between the manufacturer and the purchaser are made.

1 Scope

This part of EN 1559 specifies the general technical delivery conditions for castings made from cast metallic materials except copper alloy castings.

This part of EN 1559 is not applicable to metallic castings for further reprocessing such as forging ingots and continuously cast billets and blooms.

NOTE 1 Technical delivery conditions for copper alloy castings are specified in EN 1982.

NOTE 2 Additional technical delivery condition requirements which are specific to particular materials are specified in the following parts of this standard series: EN 1559-2 for cast steel; EN 1559-3 for cast iron; EN 1559-4 for cast aluminium; EN 1559-5 for cast magnesium; EN 1559-6 for cast zinc.

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 1559-2, *Founding — Technical conditions of delivery — Part 2: Additional requirements for steel castings*

EN 1559-3, *Founding — Technical conditions of delivery — Part 3: Additional requirements for iron castings*

EN 1559-4, *Founding — Technical conditions of delivery — Part 4: Additional requirements for aluminium alloy castings*

EN 1559-5, *Founding — Technical conditions of delivery — Part 5: Additional requirements for magnesium alloy castings*

EN 1559-6, *Founding — Technical conditions of delivery — Part 6: Additional requirements for zinc alloy castings*

EN 1560, *Founding — Designation system for cast iron — Material symbols and material numbers*

EN 1754, *Magnesium and magnesium alloys — Magnesium and magnesium alloy anodes, ingots and castings — Designation system*

EN 1780-1, *Aluminium and aluminium alloys — Designation of alloyed aluminium ingots for remelting, master alloys and castings — Part 1: Numerical designation system*

EN 1780-2, *Aluminium and aluminium alloys — Designation of alloyed aluminium ingots for remelting, master alloys and castings — Part 2: Chemical symbol based designation system*

EN 10027-1, *Designation systems for steels — Part 1: Steel names*

EN 10027-2, *Designation systems for steels — Part 2: Numerical system*

EN 10204:2004, *Metallic products — Types of inspection documents*

EN 12844, *Zinc and zinc alloys — Castings — Specifications*

EN 12883, *Founding — Equipment for the production of lost patterns for the lost wax casting process*

EN 12890, *Founding — Patterns, pattern equipment and coreboxes for the production of sand moulds and sand cores*

EN 12892, *Founding — Equipment for the production of lost patterns for the lost foam casting process*

EN ISO 10135, *Geometrical product specifications (GPS) — Drawing indications for moulded parts in technical product documentation (TPD) (ISO 10135:2007)*

ISO 80000-1:2009, *Quantities and units — Part 1: General*

ISO 5459, *Technical drawings — Geometrical tolerancing — Datums and datum-systems for geometrical tolerances*

3 Terms and definitions

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

3.1

purchaser

person or body who places an order

3.2

manufacturer

person or body who produces castings

3.3

casting

workpiece that has been shaped by solidification of a liquid metal or alloy in a mould

3.4

as-cast casting

casting that has not received any kind of finishing treatment after casting beyond removal of casting appendages, such as gates, risers and flash and removal of residues of the moulding material where necessary

3.5

as-delivered casting

casting manufactured to the delivery requirements of the order

3.6

initial sample

casting, completely manufactured by means of the equipment and processes used for series production under the appropriate control conditions

NOTE The initial sample is to furnish the proof that the manufacturer is in the position to comply with the quality requirements (dimensions, material, function, etc.) requested by the purchaser.

3.7

preliminary sample

casting which corresponds to a large degree to the "initial sample", but has either not or only partially been manufactured by means of the equipment and processes used for series production

3.8

relevant wall thickness

wall thickness representative of the casting, defined for the determination of the size of the cast samples to which the mechanical properties apply

NOTE Not always appropriate to all materials.