INTERNATIONAL STANDARD

ISO 14737

Second edition
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Carbon and low alloy cast steels for general applications

Aciers moulés au carbone et faiblement alliés d'usage général

Reference number
ISO 14737:2015(E)

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is The committee responsible for this document is ISO/TC 17, *Steel*, Subcommittee SC 11, *Steel castings*.

This second edition cancels and replaces the first edition (ISO 14737:2003) and ISO 3755, of which it constitutes a technical revision. Notably, the following changes have been made to the previous edition:

— *carbon* has replaced *non-alloy* in the title of the standard;

— grades G21Mn5 and G50CrMo4 have been deleted;

— Annexes A and B have been replaced;

— new values and grade numbers have been added to Tables 1 and 2 and Annex A.

Carbon and low alloy cast steels for general applications

1 Scope

This International Standard specifies requirements for carbon and low alloy cast steel grades for general applications.

NOTE Annex B gives information on ISO grade designation and available UNS numbers which are similar to the ISO grade designation.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 148-1, *Metallic materials — Charpy pendulum impact test — Part 1: Test method*

ISO 4990, *Steel castings — General technical delivery requirements*

ISO 6892-1, *Metallic materials — Tensile testing — Part 1: Method of test at room temperature*

3 General conditions for delivery

Steel castings supplied in accordance with this International Standard shall conform to the applicable requirements of ISO 4990, including the supplementary requirements that are indicated in the inquiry and purchase order.

4 Chemical composition

The chemical composition shall conform to the values given in Table 1.

5 Heat treatment

The type of heat treatment is left to the discretion of the manufacturer unless otherwise agreed upon at the time of inquiry and order. The information for heat treatment described in Table 2 is for information only.

6 Mechanical properties

Mechanical properties are given in Table 2 and shall be subject to an agreement at the time of inquiry and order.

Unless otherwise specified (see ISO 4990), the thickness of the test block shall be 28 mm minimum.

Properties at thicknesses greater than the maximum thickness in Table 2 may be lower and are subject to an agreement between manufacturer and purchaser.

7 Test methods

7.1 The tensile test shall be performed in accordance with ISO 6892-1.