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## Spheroidal graphite cast irons — Classification

*Fontes à graphite sphéroïdal — Classification*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 1083 was prepared by Technical Committee ISO/TC 25, *Cast iron and pig iron*, Subcommittee SC 2, *Spheroidal graphite, ferritic-perlitic and ausferritic cast irons*.

This third edition cancels and replaces the second edition (ISO 1083:1987), which has been technically revised.

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## Introduction

The properties of spheroidal graphite cast irons depend on their structure.

The mechanical properties of the material can be evaluated on machined test pieces prepared from:

- separately cast samples;
- samples cast on to either the casting or the running system, hereafter referred to as cast-on sample;
- samples cut from a casting (only when an agreement is made between the manufacturer and the purchaser).

The material grade is defined by mechanical properties measured on machined test pieces prepared from separately cast samples, cast-on samples or samples cut from the casting, by agreement between the manufacturer and the purchaser.

If hardness is a requirement of the purchaser as being important for the application, then Annex E provides means for its determination.

It is well known that tensile properties and hardness of spheroidal graphite cast iron are interrelated. When considered by the purchaser as being important for the application, both tensile and hardness properties may be specified.

Some material grades may be suitable for pressure applications.

Further technical data on spheroidal graphite cast irons is given in Annexes C and G.