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# Microstructure of cast irons — Part 3: Matrix structures

*Microstructure des fontes —  
Partie 3: Structures de matrice*



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ISO copyright office  
Ch. de Blandonnet 8 • CP 401  
CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
Fax +41 22 749 09 47  
copyright@iso.org  
www.iso.org

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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.

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](http://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 ISO/TC 25, *Cast irons and pig irons*.

ISO 945 consists of the following parts, under the general title *Microstructure of cast irons*:

- *Part 1: Graphite classification by visual analysis*
- *Part 2: Graphite classification by image analysis* [Technical Report]
- *Part 3: Matrix structures* [Technical Report]

The following parts are under preparation:

- *Part 4: Determination of nodularity in spheroidal graphite cast irons*

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## Introduction

The designation of cast iron matrix structures as given in this part of ISO 945 is in conformity with the designations published by several national foundry organisations<sup>[1][2][3]</sup> or other publishers<sup>[4]</sup>.

This Technical Report aims to

- give the designations, precise descriptions and reference micrographs of the matrix structures of cast irons, and
- facilitate the discussion and to avoid misunderstanding between manufacturer and purchaser regarding the identification of matrix structures.