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Microstructure of cast irons — Part 1: Graphite classification by visual analysis

Microstructure des fontes —

Partie 1: Classification du graphite par analyse visuelle



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Contents

Page

Foreword.....	iv
Introduction	v
1 Scope	1
2 General.....	1
2.1 Designation system for classifying graphite in cast irons.....	1
2.2 Visual classification of graphite.....	9
3 Sampling and preparation of samples.....	10
3.1 Samples taken from a casting	10
3.2 Sample preparation	10
4 Procedure for graphite classification	10
4.1 Procedure for visual classification of graphite	10
4.2 Evaluation of the analysis results.....	10
5 Reference images	11
5.1 General.....	11
5.2 Reference images for graphite form	11
5.3 Reference images for the distribution of graphite (form I).....	11
5.4 Reference images for graphite size	11
6 Designation of graphite by form, distribution and size	11
6.1 Designation system	11
6.2 Designation of intermediate graphite sizes	12
6.3 Designation of mixed graphite forms, distributions and sizes	12
6.4 Nodule count	13
7 Report	13
Annex A (informative) Typical graphite forms in cast-iron materials (Examples of photomicrographs)....	15
Annex B (informative) Distribution of flake (lamellar) graphite (form I) (Examples of photomicrographs).....	16
Annex C (informative) Common terminology and main occurrences concerning graphite in cast irons	17
Bibliography	19

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 945-1 was prepared by Technical Committee ISO/TC 25, *Cast irons and pig irons*.

Together with ISO 945-2, this first edition of ISO 945-1 cancels and replaces ISO 945:1975, which has been technically revised to take into account the expanding range of cast-iron alloys available. In addition, photomicrographs have been included together with schematic images to aid classification.

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

— *Part 1: Graphite classification by visual analysis*

Graphite classification by image analysis will be the subject of a future Part 2.

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Introduction

Microstructure designation is a useful feature that provides a means of classifying the graphite form, distribution and size in cast irons.

Graphite classification by visual analysis is a well-established method which is well recognized within the foundry industry as a means of quickly determining the overall graphite microstructure of a cast-iron casting.