



# **MALAYSIAN STANDARD**

**MS ISO 9516-1:2004  
(CONFIRMED:2013)**

## **Iron ores - Determination of various elements by X-ray fluorescence spectrometry - Part 1: Comprehensive procedure (ISO 9516-1:2003, IDT)**

**ICS: 73.060.10**

Descriptors: minerals and ores, metalliferous minerals, iron ores, chemical analysis, determination of content, various elements, x-ray fluorescence spectrometry

NOTE. This MS has been reviewed by the responsible committee and confirmed that its contents are current

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**DEPARTMENT OF STANDARDS MALAYSIA**

# DEVELOPMENT OF MALAYSIAN STANDARDS

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**Revision:** A process where existing Malaysian Standard is reviewed and updated which resulted in the publication of a new edition of the Malaysian Standard.

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NOTE: Technical corrigenda are not to correct errors which can be assumed to have no consequences in the application of the MS, for example minor printing errors.

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**Department of Standards Malaysia**  
Ministry of Science, Technology and Innovation  
Level 1 & 2, Block 2300, Century Square  
Jalan Usahawan  
63000 Cyberjaya  
Selangor Darul Ehsan  
MALAYSIA

Tel: 60 3 8318 0002  
Fax: 60 3 8319 3131  
<http://www.jsm.gov.my>  
E-mail: [central@jsm.gov.my](mailto:central@jsm.gov.my)

OR **SIRIM Berhad**  
(Company No. 367474 - V)  
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Section 2, P. O. Box 7035  
40700 Shah Alam  
Selangor Darul Ehsan  
MALAYSIA

Tel: 60 3 5544 6000  
Fax: 60 3 5510 8095  
<http://www.sirim.my>  
E-mail: [msonline@sirim.my](mailto:msonline@sirim.my)

## **Committee representation**

The Iron and Steel Industry Standards Committee (ISC P) under whose authority this Malaysian Standard was developed, comprises representatives from the following organisations:

Association of Marine Industries of Malaysia  
Department of Standards Malaysia  
Federation of Malaysian Manufacturers  
IKRAM QA Services Sdn Bhd  
Institute Materials Malaysia  
Jabatan Kerja Raya  
Malaysia Iron and Steel Industry Federation  
Malaysian Automotive Association  
Malaysian Industrial Development Authority  
Master Builders Association Malaysia  
Pertubuhan Arkitek Malaysia  
SIRIM Berhad (Machinery and Tooling Technology Programme)  
SIRIM QAS International Sdn Bhd  
Universiti Malaya  
Universiti Sains Malaysia  
Universiti Teknologi Malaysia

The Technical Committee on Raw Materials for Iron and Steel Production and Intermediate Products which developed this Malaysian Standard consists of representatives from the following organisations:

Amsteel Mills Sdn Bhd  
Department of Mineral and Geoscience  
Federation of Malaysian Foundries and Engineering Industries Association  
Malayawata Steel Sdn Bhd  
Master Builders Association Malaysia  
Perwaja Steel Sdn Bhd  
Perusahaan Otomobil Nasional Berhad  
SIRIM Berhad (Machinery and Tooling Technology Program)  
SIRIM Berhad (Secretariat)  
SIRIM QAS International Sdn Bhd (Testing Services Department)  
Southern Steel Berhad  
Universiti Kebangsaan Malaysia  
Universiti Teknologi Malaysia

### **Co-opted members:**

Amsteel Mills Sdn Bhd (HBI Operation)  
SIRIM QAS International Sdn Bhd (Product Certification Unit)

## **NATIONAL FOREWORD**

This Malaysian Standard was developed by the Technical Committee on Raw Materials for Iron and Steel Production and Intermediate Products under the authority of the Iron and Steel Industry Standards Committee.

This Malaysian Standard is identical with ISO 9516-1:2003 *Iron ores – Determination of various elements by X-ray fluorescence spectrometry – Part 1: Comprehensive procedure* published by the International Organization for Standardization (ISO). However, for the purposes of this Malaysian Standard, the following apply:

- a) in the source text, 'this International Standard' should read 'this Malaysian Standard';
- b) the comma which is used as a decimal sign (if any), to read as a point; and
- c) references to International Standards should be replaced by equivalent Malaysian Standards as follows:

### Referenced International Standards

### Corresponding Malaysian Standards

ISO 3082, *Iron ores - Sampling and sample preparation procedures*

MS ISO 3082, *Iron ores - Sampling and sample preparation procedures*

ISO 7764, *Iron ores - Preparation of predried test samples for chemical analysis*

MS ISO 7764, *Iron ores - Preparation of predried test samples for chemical analysis*

Compliance with a Malaysian Standard does not of itself confer immunity from legal obligations.

NOTE. IDT on the front cover indicates an identical standard i.e. a standard where the technical content, structure, wording and presentation of a Malaysian Standard is exactly the same as in an International Standard or is identical in technical content and it may contain the minimal editorial changes specified in clause 4.2 of ISO/IEC Guide 21.

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**Iron ores — Determination of various  
elements by X-ray fluorescence  
spectrometry —**

**Part 1:  
Comprehensive procedure**

*Minerais de fer — Dosage de divers éléments par spectrométrie de  
fluorescence de rayons X —*

*Partie 1: Procédure détaillée*

