

Iron ores — Determination of tin — Flame atomic absorption spectrometric method

ICS 73.060.10

National foreword

This British Standard was published by BSI. It is the UK implementation of ISO 11534:2006.

The UK participation in its preparation was entrusted to Technical Committee ISE/58, Iron ores.

A list of organizations represented on ISE/58 can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 January 2007

© BSI 2007

ISBN 978-0-580-49905-0

Amendments issued since publication

Amd. No.	Date	Comments

INTERNATIONAL STANDARD

ISO
11534

Second edition
2006-11-15

Iron ores — Determination of tin — Flame atomic absorption spectrometric method

*Minerais de fer — Dosage de l'étain — Méthode par spectrométrie
d'absorption atomique dans la flamme*



Contents

Page

Foreword.....	iv
1 Scope	1
2 Normative references	1
3 Principle	1
4 Reagents	2
5 Apparatus	3
6 Sampling and samples	3
6.1 Laboratory sample.....	3
6.2 Preparation of predried test samples	4
7 Procedure	4
7.1 Number of determinations	4
7.2 Test portion	4
7.3 Blank test and check test.....	4
7.4 Determination	4
7.4.1 Decomposition of the test portion	4
7.4.2 Treatment of the test solution	5
7.4.3 Adjustment of atomic absorption spectrometer	5
7.4.4 Atomic absorption measurements.....	5
7.4.5 Preparation of calibration solutions	6
8 Expression of results	6
8.1 Calculation of mass fraction of tin	6
8.2 General treatment of results	6
8.2.1 Repeatability and permissible tolerances	6
8.2.2 Determination of the analytical result.....	7
8.2.3 Between-laboratories precision	7
8.2.4 Check for trueness	8
8.2.5 Calculation of final result	8
8.3 Oxide factor	9
9 Test report	9
Annex A (normative) Flowsheet of the procedure for the acceptance of analytical values for test samples.....	10
Annex B (informative) Derivation of repeatability and permissible tolerance equations	11
Annex C (informative) Precision data obtained by international analytical trials	12

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 11534 was prepared by Technical Committee ISO/TC 102, *Iron ore and direct reduced iron*, Subcommittee SC 2, *Chemical analysis*.

This second edition cancels and replaces the first edition (ISO 11534:1998), which has been technically revised. It has been updated to alter the manner in which the precision data are presented.