INTERNATIONAL STANDARD



Second edition 2007-10-15

Iron ores for shaft direct-reduction feedstocks — Determination of the lowtemperature reduction-disintegration index and degree of metallization

Minerais de fer pour charges utilisées dans les procédés par réduction directe — Détermination de l'indice de désintégration par réduction à basse température et du degré de métallisation



Reference number ISO 11257:2007(E)

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Foreword

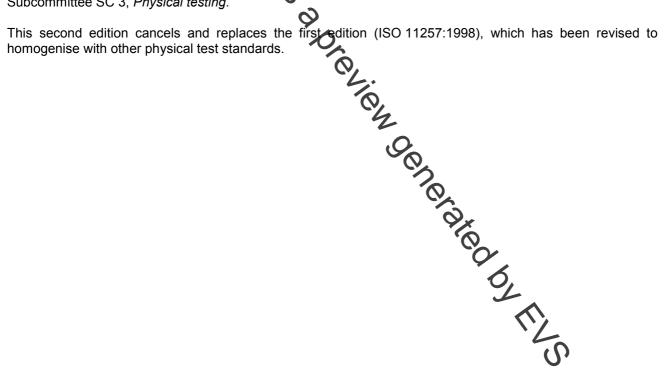
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ISO 11257 was prepared by Technical Committee ISO/TC 102, Iron ore and direct reduced iron, Subcommittee SC 3, Physical testing.



This International Standard concerns one of a number of physical test methods that have been developed to measure various physical parameters and to evaluate the behaviour of iron ores, including reducibility, disintegration, crushing strength, apparent density, etc. This method was developed to provide a uniform procedure, validated by collaborative testing, to facilitate comparisons of tests made in different laboratories.

The results of this pest should be considered in conjunction with other tests used to evaluate the quality of iron

This International Standard may be used to provide test results as part of a production quality control system,

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Iron ores for shaft direct-reduction feedstocks — Determination of the low-temperature reduction-disintegration index and degree of metallization

CAUTION — This international Standard may involve hazardous materials, operations and equipment. This standard does not purport to address all of the safety issues associated with its use. It is the responsibility of the user of this International Standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to its use.

1 Scope

This International Standard specifies a method to provide a relative measure for evaluating the degree of size degradation and degree of metallization of iron ores, when reduced under conditions resembling those prevailing in shaft direct-reduction processes.

This International Standard is applicable to tymp ores and hot-bonded pellets.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For uncased references, the latest edition of the referenced document (including any amendments) applies.

ISO 2597-1:2006, Iron ores — Determination of total iron ontent — Part 1: Titrimetric method after tin (II) chloride reduction

ISO 3082:2000¹⁾, Iron ores — Sampling and sample preparation procedures

ISO 3310-1:2000, Test sieves — Technical requirements and testing Part 1: Test sieves of metal wire cloth

ISO 3310-2:1999, Test sieves — Technical requirements and testing — Part 2: Test sieves of perforated metal plate

ISO 4701:—²⁾, Iron ores and direct reduced iron — Determination of size distribution by sieving

ISO 5416:2006, Direct reduced iron — Determination of metallic iron — Bromine-metranol titrimetric method

ISO 9507:1990, Iron ores — Determination of total iron content — Titanium (III) chloride reduction methods

ISO 11323:2002, Iron ore and direct reduced iron — Vocabulary

¹⁾ Under revision to incorporate ISO 10836, Iron ores — Method of sampling and sample preparation for physical testing.

²⁾ To be published. (Revision of ISO 4701:1999)