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भारतीय मानक
वोल्फ्रामाइट कॉन्संटेन्ट के लिए - विशिष्टि
(पहला पुनरीक्षण)

Draft Indian Standard

WOLFRAMITE CONCENTRATE - SPECIFICATION
(*First Revision of IS 5632*)

ICS 77.100

Ores and Feed Stock for Iron and Steel Industry
Sectional Committee, MTD 13

Last date for receipt of comments are:
27 Oct 2023

FOREWORD

(Formal clauses to be added later)

The Standard was first published in 1970. This revision has been brought out to bring the standard in the latest style and format of the Indian Standards.

In addition, the following changes have been made:

- a) Reference clause has been updated; and
- b) A clause on BIS certification marking has been added.

Wolframite concentrate is the basic raw material used for the production of ferrotungsten. This standard contains clauses **4**, **5.2**, **6** and **7** which call for agreement between the purchaser and the supplier.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2: 2022 'Rules for rounding off numerical values (*Second revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

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WOLFRAMITE CONCENTRATE – SPECIFICATION
(First Revision of IS 5632)

1 SCOPE

This standard covers the requirements for wolframite concentrate used in the ferrous industry.

2 REFERENCES

The following Indian Standards contain provisions, which through reference in this text, constitute provisions of this standard. At the time of publication the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

<i>IS No.</i>	<i>Title</i>
1387: 1993	General requirements for the supply of metallurgical materials (<i>second revision</i>)
IS 460	Test sieves — Specifications
(Part 1) : 2020	Wire cloth test sieve (<i>fourth revision</i>)
(Part 2) : 2020	Perforated plate test sieve (<i>fourth revision</i>)
(Part 3) : 2020	Methods of examination of apertures of test sieves (<i>fourth revision</i>)
IS 15765 : 2008	Method of sampling ferro alloys for sieve analysis and size determination

3 SUPPLY OF MATERIAL

General requirements relating to the supply of Wolframite concentrate shall be as laid down in IS 1387.

4 CHEMICAL COMPOSITION

The chemical composition of the material shall comply with the following requirements:

<i>Constituent</i>	<i>Percent</i>
Tungsten oxide	65.0, <i>Min</i>
Phosphorus	0.05, <i>Max</i>
Arsenic	0.1, <i>Max</i>
Antimony	0.1, <i>Max</i>
Bismuth	0.1, <i>Max</i>

Tin	0.1, <i>Max</i>
Sulphur	0.05, <i>Max</i>
Copper	0.05, <i>Max</i>
Silica	3.0, <i>Max</i>
Manganese oxide	10.0 to 15.0

NOTE – The determination of chemical constituents shall be as agreed to between the purchaser and the supplier.

5 FORM AND SIZE

5.1 Unless otherwise specified the material shall be supplied in lumps or as crushed and screened particles.

5.2 If wolframite concentrate is supplied in crushed and screened particles, the size ranges shall be as agreed between manufacturer and purchaser. Further, the undersize and oversize values shall be as agreed between manufacturer and purchaser.

5.3 The undersize and oversize values shall be valid at the point of delivery to the purchaser. The test sieves used shall be in accordance with sizes specified in IS 460 (Part 1) and IS 460 (Part 2). As the standard test sieve will become less accurate after period of time, the sieve shall therefore be periodically checked according to IS 460 (Part 3) and the correction factor shall be determined and applied to the result.

6 SAMPLING

The material shall be sampled as agreed to between the purchaser and the supplier for chemical analysis and size analysis.

7 PACKING

The material shall be supplied packed in suitable containers in quantities mutually agreed to between the purchaser and the supplier.

8 MARKING

8.1 The material shall be marked with the following:

- a) Indication of the source of manufacture;
- b) size range;
- c) Quantity; and
- d) Any other information, if required.

8.1 BIS Certification Marking

The products(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provision of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the product may be marked with the standard mark.

