

BUREAU OF INDIAN STANDARDS

Program of Work

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

Scope: Standardization in the field of Ferrous ores, Ferro Alloys, Sponge Iron/Direct Reduced Iron and other Metallic additions/Feed Stock used in the Iron and Steel making Industry.

Liaison: **ISO TC-102 (P): Iron ore and direct reduced iron ISO TC-102 SC-1 (P): Sampling ISO TC-102 SC-3 (P): Physical testing**

Published Standards

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS 10345 : 2004 <i>Reviewed In : 2023</i>	Flux grade limestone for use in iron and steel making - Specification (Second Revision)	October, 2023	-	Indigenous
2	IS 10346 : 2004 <i>Reviewed In : 2023</i>	Dolomite for metallurgical and refractory use - Specification (Second Revision)	October, 2023	-	Indigenous
3	IS 10818 : 2024	CHROMITE FOR METALLURGICAL INDUSTRY - SPECIFICATION (First Revision)		-	Indigenous
4	IS 10823 : 2018 <i>Reviewed In : 2023</i>	Methods for determination of thermal degradation index (TDI) and reduction degradation index (RDI) of iron oxides: lump ores, sinter and pellets (Second Revision)	December, 2023	-	Indigenous
5	IS/ISO 10835 : 2007 <i>Reviewed In : 2024</i> ISO 10835:2007	Direct reduced iron and hot briquetted iron - Sampling and sample preparation	February, 2024	-	Identical under single numbering
6	IS 10852 : 2012 <i>Reviewed In : 2022</i>	Storage and transportation of sponge iron, direct reduced (DRI) and hot briquetted iron (HBI) - Guidelines (First Revision)	February, 2022	-	Indigenous
7	IS 11092 : 2001 <i>Reviewed In : 2023</i>	Iron ore pellets for direct reduction processes - Specification (Second Revision)	November, 2023	1	Indigenous
8	IS 11093 : 2001 <i>Reviewed In : 2021</i>	Iron ore lumps for direct reduction processes - Specification (Second Revision)	March, 2021	2	Indigenous
9	IS 11211 : 1984 <i>Reviewed In : 2024</i>	Methods of sampling rock phosphate	March, 2024	-	Indigenous
10	IS 11281 : 2005 <i>Reviewed In : 2021</i>	Manganese ore for use in iron and steel making (First Revision)	March, 2021	-	Indigenous
11	IS 11282 : 2000 <i>Reviewed In : 2024</i>	Guidelines for laboratory Pot - Grate sintering tests for iron ore fines (First Revision)	January, 2024	1	Indigenous
12	IS 11283 : 1985	Method for determination of	January, 2024	1	Indigenous

	Reviewed In : 2024	softening point of iron oxides (In Powder Form); lump ore, sinter and pellets			
13	IS 11284 : 1985 Reviewed In : 2021	Rotary tube test for iron bearing materials for the manufacture of sponge iron/direct reduced iron(DRI)	March, 2021	1	Indigenous
14	IS 11285 : 2002 Reviewed In : 2021	Various tests on raw material to be used for coal based rotary kiln direct reduction (First Revision)	March, 2021	-	Indigenous
15	IS 11292 : 1985 Reviewed In : 2024	Method for determination of relative reducibility of iron oxides: lump ores, sinter and pellets	March, 2024	-	Indigenous
16	IS 11336 : 1985 Reviewed In : 2024	Guidelines for heat hardened iron ore pellets for iron making in blast furnaces	March, 2024	-	Indigenous
17	IS 11348 : 1989 Reviewed In : 2024	Iron ore pellets - Apparent specific gravity, true specific gravity and apparent porosity - Methods for determination (First Revision)	March, 2024	-	Indigenous
18	IS 11373 : 1985 Reviewed In : 2022	Guideline for laboratory disc pelletisation of iron ore fines	February, 2022	-	Indigenous
19	IS 11607 : 1986 Reviewed In : 2024	Methods of sampling iron ore sinters	March, 2024	-	Indigenous
20	IS 11795 : 1996 Reviewed In : 2022	Guidelines for ash softening studies on solid reductants for direct reduction (First Revision)	February, 2022	2	Indigenous
21	IS 11860 : 1998 Reviewed In : 2024	Guidelines for non - coking coals for solid reductant based direct reduction in rotary kilns(And Other Reactors) (First Revision)	March, 2024	2	Indigenous
22	IS 11894 : 1986 Reviewed In : 2024	Classification of magnetite iron ore	March, 2024	-	Indigenous
23	IS 11895 : 2006 Reviewed In : 2023	Classification of manganese ore, ferruginous manganese ore, siliceous manganese ore, dioxide manganese ore and manganiferrous iron (First Revision)	October, 2023	-	Indigenous
24	IS 11896 : 1986 Reviewed In : 2024	Method for determination of apparent specific gravity, true specific gravity and apparent porosity of iron ore lumps and sinters	March, 2024	-	Indigenous
25	IS 11897 : 1986 Reviewed In : 2024	Guidelines for methods to be adopted for identifying the mineralogy of iron oxides; lump ores, sinters and pellets	March, 2024	-	Indigenous
26	IS 12052 : 2007 Reviewed In : 2022	Method of determination of re-oxidation rate of sponge iron/direct reduced iron (DRI) in contact with humid air and in direct contact with water (First Revision)	March, 2022	-	Indigenous
27	IS 12263 : 1987 Reviewed In : 2024	Method for determination of rigidity of sponge iron/DRI during transportation and handling	March, 2024	1	Indigenous
28	IS 12381 : 1994 Reviewed In : 2022	Coal (Char) reactivity for direct reduction process - Method of determination (First Revision)	March, 2022	1	Indigenous
29	IS 12394 : 1988	Method for weathering test on iron	March, 2024	-	Indigenous

	Reviewed In : 2024	ore sinter			
30	IS 12550 : 1988 Reviewed In : 2024 ISO 4701	Methods of determining particle size distribution of iron ore fines	March, 2024	2	Not Equivalent
31	IS 12595 : 1989 Reviewed In : 2024	Classification of terminology for exploration of mineral deposits	March, 2024	-	Indigenous
32	IS 12596 : 1989 Reviewed In : 2024	Manganese ore sinters for blending for ferromanganese production - Specification	March, 2024	-	Indigenous
33	IS 12668 : 1989 Reviewed In : 2021	Melting characteristics of sponge iron/direct reduced iron (DRI)	March, 2021	1	Indigenous
34	IS 12929 : 2007 Reviewed In : 2022 ISO 11257	Feedstock (Iron Oxides And Natural Gas) for gas - Based direct reduction processes - Guidelines (First Revision)	March, 2022	-	Not Equivalent
35	IS 13344 : 1992 Reviewed In : 2021 ISO 3086	Methods for checking the bias of sampling of ores	March, 2021	-	Not Equivalent
36	IS 13676 : 1993 Reviewed In : 2024 Decision taken to Reaffirm and Archive	Quartzite for iron making in blast furnaces - Specification	March, 2024	-	Indigenous
37	IS 13885 : 2001 Reviewed In : 2022	Non - Magnetic/char in sponge iron (DRI) - Methods of determination (First Revision)	March, 2022	2	Indigenous
38	IS 1405 : 2010 Reviewed In : 2021 ISO 3082	Iron ores - Sampling and sample preparation - Manual method (Third Revision)	March, 2021	-	Not Equivalent
39	IS 1449 : 2010 Reviewed In : 2021	Methods of sampling of manganese ores (Second Revision)	March, 2021	-	Indigenous
40	IS 14719 : 1999 Reviewed In : 2021	Density of hot briquetted iron (HBI) - Method for determination	March, 2021	1	Indigenous
41	IS 14795 : 2000 Reviewed In : 2023 ISO 11256	Method for determination of clustering of iron oxide feedstock for direct reduction processes	August, 2023	1	Not Equivalent
42	IS 14796 : 2000 Reviewed In : 2021	Guidelines on feedstock for smelting reduction processes	March, 2021	1	Indigenous
43	IS 14797 : 2000 Reviewed In : 2021	Classification of smelting reduction (Alternate Iron Making) processes	March, 2021	1	Indigenous
44	IS 14991 : 2001 Reviewed In : 2022	Method of determination for coal char strength	March, 2022	-	Indigenous
45	IS 15774 : 2018 Reviewed In : 2023	Sponge iron/direct reduced iron (DRI) hot briquette iron (HBI) and cold briquette iron (CBI) for steel making - Specification	March, 2023	-	Indigenous
46	IS 15944 : 2011 ISO 3086 : 2006 Reviewed In : 2022 ISO 3086:2006	Iron ores - Experimental methods for checking the bias of sampling	March, 2022	-	Identical under dual numbering
47	IS 16182 : 2014 Reviewed In : 2020	Magnetics in char from coal based sponge iron (DRI) - Methods of determination		-	Indigenous
48	IS 16482 : 2018 Reviewed In : 2023	Use of synthesis gas from coal gasifier for production of sponge iron - Guidelines	March, 2023	-	Indigenous
49	IS 16750 : 2018 ISO 16742 : 2014	Iron ores - Sampling of slurries	November, 2023	-	Identical under dual numbering

	Reviewed In : 2023 ISO 16742:2014				
50	IS 18181 : 2023 ISO 15968:2016 ISO 15968:2016	Direct reduced iron Determination of apparent density and water absorption of hot briquetted iron HBI		-	Identical under dual numbering
51	IS 2109 : 1982 Reviewed In : 2024	Methods of sampling dolomite, limestone and other allied materials (First Revision)	February, 2024	-	Indigenous
52	IS 2245 : 1962 Reviewed In : 2023	Methods of sampling quartzite	August, 2023	1	Indigenous
53	IS 2246 : 2023 JIS M 8100: 2018	Sampling Fluorspar (Fluorite) $i_c/2$ Methods (First Revision)		-	Not Equivalent
54	IS 4156 : 2023	SAMPLING OF BARYTES $i_c/2$ METHODS		-	Indigenous
55	IS 4166 : 1967 Reviewed In : 2022	Methods for sampling of ilmenite and rutile	January, 2022	-	Indigenous
56	IS 4574 : 1989 Reviewed In : 2024	Fluorspar for use in metallurgical industries - Specification (Second Revision)	March, 2024	-	Indigenous
57	IS 4763 : 2006 Reviewed In : 2022	Manganese ore for production of ferro manganese - Specification (Second Revision)	January, 2022	-	Indigenous
58	IS 5442 : 1992 Reviewed In : 2024	Haematite iron ore - Classification (Second Revision)	March, 2024	-	Indigenous
59	IS 5534 : 1969 Reviewed In : 2024	Method for determination of specific surface area of powdered ore samples	March, 2024	-	Indigenous
60	IS 5632 : 1970 Reviewed In : 2021	Specification for wolframite concentrate	March, 2021	-	Indigenous
61	IS 5633 : 2023	Vanadium Pentoxide $i_c/2$ Specification (Second Revision)		-	Indigenous
62	IS 5842 : 2024 ISO 3852	MEASURING BULK DENSITY OF IRON OXIDES: LUMP ORES SINTER AND PELLETS - METHOD		-	Not Equivalent
63	IS 6495 : 2019 Reviewed In : 2023 ISO 3271	Method of tumbler test for iron oxides : lump ores, sinter and pellets (Second Revision)	August, 2023	-	Not Equivalent
64	IS 8167 : 1989 Reviewed In : 2022 ISO 4695	Method for determination of reducibility index of iron ore oxides, lumps ore, sinter and pillets (First Revision)	January, 2022	1	Not Equivalent
65	IS 8562 : 1977 Reviewed In : 2022	Methods of sampling chrome ore	January, 2022	-	Indigenous
66	IS 8604 : 1977 Reviewed In : 2024	Method for determination of compression strength of iron ore pellets after reduction	February, 2024	-	Indigenous
67	IS 8624 : 1995 Reviewed In : 2022 ISO 4698	Method for determination of swelling index of iron ore pellets (First Revision)	February, 2022	-	Not Equivalent
68	IS 8625 : 1986 Reviewed In : 2023 ISO 4700	Determination of crushing strength of iron ore pellets (First Revision)	August, 2023	1	Not Equivalent
69	IS 9101 : 1979 Reviewed In : 2023 ISO 3082	Methods of sampling iron ore pellets	August, 2023	1	Not Equivalent
70	IS 9660 : 2001	Methods for determination of	February, 2022	-	Indigenous

	Reviewed In : 2022	softening - Melting characteristics of iron ore lumps/ pellets/sinter (First Revision)			
71	IS 9959 : 2024	IRON ORE SINTERS FOR IRON MAKING IN BLAST FURNACES - GUIDELINES (First Revision)		-	Indigenous
72	IS 9963 : 1981 Reviewed In : 2020	Determination of shatter index of iron ore lumps, sinters and pellets	March, 2020	1	Indigenous

Standards under Development

Projects Approved

SI. No.	Doc No.	Title
<i>No Records Found</i>		

Preliminary Draft Standards

SI. No.	Doc No.	Title
1	MTD 13 (20343)	IRON ORE PELLETS FOR FEEDSTOCK OF BLAST FURNACE - SPECIFICATION
2	MTD 13 (20705) Revision of: IS 8562:1977	METHODS OF SAMPLING CHROME ORE First Revision
3	MTD 13 (20764) Revision of: IS 2245:1962	METHODS OF SAMPLING QUARTZITE First Revision
4	MTD 13 (21012) Revision of: IS 2085:1962	Code for designation of ferro - Alloys
5	MTD 13 (22484) Revision of: IS 3013:1991	FERROBORON - SPECIFICATION
6	MTD 13 (22517) Revision of: IS 11284:1985	METHOD OF ROTARY TUBE TEST FOR IRON BEARING MATERIALS FOR THE MANUFACTURE OF SPONGE IRON/DIRECT REDUCED IRON DRI

Drafts Standards in WC Stage

SI. No.	Doc No.	Title
1	MTD 13 (22542) Revision of: IS 12668:1989	MELTING CHARACTERISTICS OF SPONGE IRON/DIRECT REDUCED IRON DRI First Revision
2	MTD 13 (22878) Revision of: IS 1110:2023	Ferrosilicon and Alloyed Ferrosilicon Specification Sixth Revision

Draft Standards Completed WC Stage

SI. No.	Doc No.	Title
1	MTD 13 (21017) Revision of: IS 1110:2023	Specification for ferrosilicozirconium First Revision
2	MTD 13 (23648) Revision of: IS 1110:2023	LABORATORY POT-GRATE SINTERING TESTS FOR IRON ORE FINES - GUIDELINES
3	MTD 13 (23668) Revision of: IS 1110:2023	DETERMINATION OF SOFTENING POINT OF IRON OXIDES IN POWDER FORM LUMP ORE SINTER AND PELLETS METHOD
4	MTD 13 (23674) Revision of: IS 1110:2023	DETERMINATION OF COMPRESSION STRENGTH OF IRON ORE PELLETS AFTER REDUCTION - METHOD First Revision
5	MTD 13 (23693) Revision of: IS 1110:2023	SAMPLING OF DOLOMITE LIMESTONE AND OTHER ALLIED MATERIALS INCLUDING PYROXINITE AND OLIFLUX - METHODS Second Revision

Finalized Draft Indian Standard

SI. No.	Doc No.	Title
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Finalized Draft Indian Standards under Print

Sl. No.	Doc No.	Title
1	MTD 13 (20875) Revision of: IS 5632:1970	SPECIFICATION FOR WOLFRAMITE CONCENTRATE First Revision
2	MTD 13 (23619)	Iron ores for blast furnace feedstocks Determination of the decrepitation index

Total Published Standards:72 Total Standards Under development:15

Aspect Wise Report

Product : 15
 Code of Practices : 23
 Methods of Test : 30
 Terminology : 1
 Dimensions : 0
 System Standard : 0
 Safety Standard : 0
 Others : 3
 Service Specification : 0
 Process Specification : 0
 Unclassified : 0

Annexure-I :List of Indian Standards Withdrawn/Superseded

Sl. No.	IS No. & Year	Title
1	IS/ISO 15968 : 2000 Reviewed In : 2019 ISO 15968:2000	Direct reduced iron - Determination of apparent density and water absorption of hot briquetted iron HBI
2	IS 373 : 1952	Manganese Ore Metallurgical Grade tentative
3	IS 5483 : 1969	Method for determination of specific gravity of iron ores pellets and sinters
4	IS 5843 : 1970	Method of measuring the bulk density of iron ore and iron ore agglomerates including sinters in a large container applicable for size over 40mm

Annexure-II :List of Indian Product Standards

Sl. No.	IS No. & Year	Title
1	IS 10345 : 2004 Reviewed In : 2023	Flux grade limestone for use in iron and steel making - Specification Second Revision
2	IS 10346 : 2004 Reviewed In : 2023	Dolomite for metallurgical and refractory use - Specification Second Revision
3	IS 10818 : 2024	CHROMITE FOR METALLURGICAL INDUSTRY - SPECIFICATION First Revision
4	IS 11092 : 2001 Reviewed In : 2023	Iron ore pellets for direct reduction processes - Specification Second Revision
5	IS 11093 : 2001 Reviewed In : 2021	Iron ore lumps for direct reduction processes - Specification Second Revision
6	IS 11281 : 2005 Reviewed In : 2021	Manganese ore for use in iron and steel making First Revision
7	IS 11336 : 1985 Reviewed In : 2024	Guidelines for heat hardened iron ore pellets for iron making in blast furnaces
8	IS 12596 : 1989 Reviewed In : 2024	Manganese ore sinters for blending for ferromanganese production - Specification
9	IS 13676 : 1993	Quartzite for iron making in blast furnaces - Specification

	Reviewed In : 2024 Decision taken to Reaffirm and Archive	
10	IS 15774 : 2018 Reviewed In : 2023	Sponge iron direct reduced iron DRI hot briquette iron HBI and cold briquette iron CBI for steel making - Specification
11	IS 4574 : 1989 Reviewed In : 2024	Fluorspar for use in metallurgical industries - Specification Second Revision
12	IS 4763 : 2006 Reviewed In : 2022	Manganese ore for production of ferro manganese - Specification Second Revision
13	IS 5632 : 1970 Reviewed In : 2021	Specification for wolframite concentrate
14	IS 5633 : 2023	Vanadium Pentoxide Specification Second Revision
15	IS 9959 : 2024	IRON ORE SINTERS FOR IRON MAKING IN BLAST FURNACES - GUIDELINES First Revision