

## 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 Reviewed In : 2023	Flux grade limestone for use in iron and steel making - Specification (Second Revision)	October, 2023	-	Indigenous
2	IS 10346:2004 Reviewed In : 2023	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 Reviewed In : 2023	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 Reviewed In : 2024 ISO 10835:2007	Direct reduced iron and hot briquetted iron - Sampling and sample preparation	February, 2024	-	Identical under single numbering
6	IS 10852:2012 Reviewed In : 2022	Storage and transportation of sponge iron, direct reduced (DRI) and hot briquetted iron (HBI) - Guidelines (First Revision)	February, 2022	-	Indigenous
7	IS 11092:2001 Reviewed In : 2023	Iron ore pellets for direct reduction processes - Specification (Second Revision)	November, 2023	1	Indigenous
8	IS 11093:2001 Reviewed In : 2025	Iron ore lumps for direct reduction processes - Specification (Second Revision)	March, 2025	2	Indigenous
9	IS 11211:1984 Reviewed In : 2024	Methods of sampling rock phosphate	March, 2024	-	Indigenous
10	IS 11281:2005 Reviewed In : 2021	Manganese ore for use in iron and steel making (First Revision)	March, 2021	-	Indigenous
11	IS 11282:2000 Reviewed In : 2024	Guidelines for laboratory Pot - Grate sintering tests for iron ore fines (First Revision)	January, 2024	1	Indigenous
12	IS 11284:1985	Rotary tube test for iron bearing	March, 2021	1	Indigenous

	Reviewed In : 2021	materials for the manufacture of sponge iron/direct reduced iron(DRI)			
13	IS 11285:2002 Reviewed In : 2025	Various tests on raw material to be used for coal based rotary kiln direct reduction (First Revision)	March, 2025	-	Indigenous
14	IS 11292:1985 Reviewed In : 2024	Method for determination of relative reducibility of iron oxides: lump ores, sinter and pellets	March, 2024	-	Indigenous
15	IS 11336:1985 Reviewed In : 2024	Guidelines for heat hardened iron ore pellets for iron making in blast furnaces	March, 2024	-	Indigenous
16	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
17	IS 11373:1985 Reviewed In : 2022	Guideline for laboratory disc pelletisation of iron ore fines	February, 2022	-	Indigenous
18	IS 11607:1986 Reviewed In : 2024	Methods of sampling iron ore sinters	March, 2024	-	Indigenous
19	IS 11795:1996 Reviewed In : 2022	Guidelines for ash softening studies on solid reductants for direct reduction (First Revision)	February, 2022	2	Indigenous
20	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
21	IS 11894:1986 Reviewed In : 2024	Classification of magnetite iron ore	March, 2024	-	Indigenous
22	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
23	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
24	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
25	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
26	IS 12263:1987 Reviewed In : 2024	Method for determination of rigidity of sponge iron/DRI during transportation and handling	March, 2024	1	Indigenous
27	IS 12381:1994 Reviewed In : 2022	Coal (Char) reactivity for direct reduction process - Method of determination (First Revision)	March, 2022	1	Indigenous
28	IS 12394:1988 Reviewed In : 2024	Method for weathering test on iron ore sinter	March, 2024	-	Indigenous
29	IS 12550:1988 Reviewed In : 2024 ISO 4701	Methods of determining particle size distribution of iron ore fines	March, 2024	2	Not Equivalent

30	IS 12595:1989 <a href="#">Reviewed In : 2024</a>	Classification of terminology for exploration of mineral deposits	March, 2024	-	Indigenous
31	IS 12596:1989 <a href="#">Reviewed In : 2024</a>	Manganese ore sinters for blending for ferromanganese production - Specification	March, 2024	-	Indigenous
32	IS 12668:1989 <a href="#">Reviewed In : 2021</a>	Melting characteristics of sponge iron/direct reduced iron (DRI)	March, 2021	1	Indigenous
33	IS 12929:2007 <a href="#">Reviewed In : 2022</a> <a href="#">ISO 11257</a>	Feedstock (Iron Oxides And Natural Gas) for gas - Based direct reduction processes - Guidelines (First Revision)	March, 2022	-	Not Equivalent
34	IS 13344:1992 <a href="#">Reviewed In : 2021</a> <a href="#">ISO 3086</a>	Methods for checking the bias of sampling of ores	March, 2021	-	Not Equivalent
35	IS 13676:1993 <a href="#">Reviewed In : 2024</a> Decision taken to Reaffirm and Archive	Quartzite for iron making in blast furnaces - Specification	March, 2024	-	Indigenous
36	IS 13885:2001 <a href="#">Reviewed In : 2022</a>	Non - Magnetic/char in sponge iron (DRI) - Methods of determination (First Revision)	March, 2022	2	Indigenous
37	IS 1405:2010 <a href="#">Reviewed In : 2021</a> <a href="#">ISO 3082</a>	Iron ores - Sampling and sample preparation - Manual method (Third Revision)	March, 2021	-	Not Equivalent
38	IS 1449:2010 <a href="#">Reviewed In : 2021</a>	Methods of sampling of manganese ores (Second Revision)	March, 2021	-	Indigenous
39	IS 14719:1999 <a href="#">Reviewed In : 2021</a>	Density of hot briquetted iron (HBI) - Method for determination	March, 2021	1	Indigenous
40	IS 14795:2000 <a href="#">Reviewed In : 2023</a> <a href="#">ISO 11256</a>	Method for determination of clustering of iron oxide feedstock for direct reduction processes	August, 2023	1	Not Equivalent
41	IS 14796:2000 <a href="#">Reviewed In : 2021</a>	Guidelines on feedstock for smelting reduction processes	March, 2021	1	Indigenous
42	IS 14797:2000 <a href="#">Reviewed In : 2021</a>	Classification of smelting reduction (Alternate Iron Making) processes	March, 2021	1	Indigenous
43	IS 14991:2001 <a href="#">Reviewed In : 2022</a>	Method of determination for coal char strength	March, 2022	-	Indigenous
44	IS 15774:2018 <a href="#">Reviewed In : 2023</a>	Sponge iron/direct reduced iron (DRI) hot briquette iron (HBI) and cold briquette iron (CBI) for steel making - Specification	March, 2023	-	Indigenous
45	IS 15944:2011 ISO 3086 : 2006 <a href="#">Reviewed In : 2022</a> <a href="#">ISO 3086:2006</a>	Iron ores - Experimental methods for checking the bias of sampling	March, 2022	-	Identical under dual numbering
46	IS 16182:2014 <a href="#">Reviewed In : 2024</a>	Magnetics in char from coal based sponge iron (DRI) - Methods of determination	September, 2024	-	Indigenous
47	IS 16482:2018 <a href="#">Reviewed In : 2023</a>	Use of synthesis gas from coal gasifier for production of sponge iron - Guidelines	March, 2023	-	Indigenous
48	IS 16750:2018 ISO 16742 : 2014 <a href="#">Reviewed In : 2023</a> <a href="#">ISO 16742:2014</a>	Iron ores - Sampling of slurries	November, 2023	-	Identical under dual numbering
49	IS 18181:2023 ISO 15968:2016	Direct reduced iron Determination of apparent density and water		-	Identical under dual numbering

	ISO 15968:2016	absorption of hot briquetted iron HBI			
50	IS 2109:1982 Reviewed In : 2024	Methods of sampling dolomite, limestone and other allied materials (First Revision)	February, 2024	-	Indigenous
51	IS 2245:1962 Reviewed In : 2023	Methods of sampling quartzite	August, 2023	1	Indigenous
52	IS 2246:2023 JIS M 8100: 2018	Sampling Fluorspar (Fluorite) $i_c \frac{1}{2}$ Methods ( First Revision )		-	Not Equivalent
53	IS 4156:2023	SAMPLING OF BARYTES $i_c \frac{1}{2}$ METHODS		-	Indigenous
54	IS 4166:1967 Reviewed In : 2022	Methods for sampling of ilmenite and rutile	January, 2022	-	Indigenous
55	IS 4574:1989 Reviewed In : 2024	Fluorspar for use in metallurgical industries - Specification (Second Revision)	March, 2024	-	Indigenous
56	IS 4763:2006 Reviewed In : 2022	Manganese ore for production of ferro manganese - Specification (Second Revision)	January, 2022	-	Indigenous
57	IS 5442:1992 Reviewed In : 2024	Haematite iron ore - Classification (Second Revision)	March, 2024	-	Indigenous
58	IS 5534:1969 Reviewed In : 2024	Method for determination of specific surface area of powdered ore samples	March, 2024	-	Indigenous
59	IS 5632:2025	WOLFRAMITE CONCENTRATE - SPECIFICATION (First Revision)		-	Indigenous
60	IS 5633:2023	Vanadium Pentoxide $i_c \frac{1}{2}$ Specification (Second Revision)		-	Indigenous
61	IS 5842:2024 ISO 3852	MEASURING BULK DENSITY OF IRON OXIDES: LUMP ORES SINTER AND PELLETS - METHOD		-	Not Equivalent
62	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
63	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
64	IS 8562:1977 Reviewed In : 2022	Methods of sampling chrome ore	January, 2022	-	Indigenous
65	IS 8604:1977 Reviewed In : 2024	Method for determination of compression strength of iron ore pellets after reduction	February, 2024	-	Indigenous
66	IS 8624:1995 Reviewed In : 2022 ISO 4698	Method for determtnation of swelling index of iron ore pellets (First Revision)	February, 2022	-	Not Equivalent
67	IS 8625:1986 Reviewed In : 2023 ISO 4700	Determination of crushing strength of iron ore pellets (First Revision)	August, 2023	1	Not Equivalent
68	IS 9101:1979 Reviewed In : 2023 ISO 3082	Methods of sampling iron ore pellets	August, 2023	1	Not Equivalent
69	IS 9660:2001 Reviewed In : 2022	Methods for determination of softening - Melting characteristics of iron ore lumps/ pellets/sinter (First Revision)	February, 2022	-	Indigenous

70	IS 9959:2024	IRON ORE SINTERS FOR IRON MAKING IN BLAST FURNACES - GUIDELINES ( First Revision )		-	Indigenous
71	IS 9963:1981 Reviewed In : 2024	Determination of shatter index of iron ore lumps, sinters and pellets	September, 2024	1	Indigenous

Standards under Development

Projects Approved		
SI. No.	Doc No.	Title
1	MTD 13 (28209) Revision of: IS 14795:2000	Iron Ore Pellets for Shaft Direct-reduction Feedstocks - Determination of the Clustering Index

Preliminary Draft Standards		
SI. No.	Doc No.	Title
No Records Found		

Drafts Standards in WC Stage		
SI. No.	Doc No.	Title
No Records Found		

Draft Standards Completed WC Stage		
SI. No.	Doc No.	Title
1	MTD 13 (23648)	LABORATORY POT-GRATE SINTERING TESTS FOR IRON ORE FINES - GUIDELINES

Finalized Draft Indian Standard		
SI. No.	Doc No.	Title
No Records Found		

Finalized Draft Indian Standards under Print		
SI. No.	Doc No.	Title
1	MTD 13 (22542) Revision of: IS 12668:1989	MELTING CHARACTERISTICS OF SPONGE IRONDIRECT REDUCED IRON DRI First Revision

Total Published Standards:71 Total Standards Under development:3		
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Aspect Wise Report

Product : 15  
Code of Practices : 23  
Methods of Test : 29  
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 11283:1985 Reviewed In : 2024	Method for determination of softening point of iron oxides In Powder Form lump ore sinter and pellets
2	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
3	IS 373:1952	Manganese Ore Metallurgical Grade tentative
4	IS 5483:1969	Method for determination of specific gravity of iron ores pellets and sinters
5	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 : 2025	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 Reviewed In : 2024 Decision taken to Reaffirm and Archive	Quartzite for iron making in blast furnaces - Specification
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 5632:2025	WOLFRAMITE CONCENTRATE - SPECIFICATION First Revision
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