

BUREAU OF INDIAN STANDARDS

(Not to be reproduced without permission of BIS or used as an Indian Standard)

Draft AMENDMENT NO. 1

TO

IS 648 : 2022 Cold Rolled Non-Oriented Electrical Steel Sheet and Strip - Fully Processed Type - Specification.

(Sixth Revision)

ICS 77.140.40

Wrought Steel Products Sectional Committee,
MTD 04

Last date for receipt of comments:
September 28, 2024

(Page 3, clause 4, Table 1) - Substitute the following for the existing table:

Table 1 Designation of Electrical Steel Grades

(Clauses 4, 6.1.3, 7.1.1.2, 7.1.2.1, 7.1.2.4 and 9.2)

Designation	Nominal Thickness mm	Maximum Specific Total Loss W/Kg			Minimum a.c. Magnetisation in T			Maximum anisotropy of loss percent at 1.5 T	Minimum Stacking Factor	Minimum Numbers of Bends	Conventional Density Kg/dm ³
		1.0 T	1.5 T		2 500 A/m	5 000 A/m	10 000 A/m				
		50Hz	50Hz	60 Hz							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
35C230	0.35	0.95	2.30	2.90	1.49	1.60	1.70	±17	0.95	2	7.60
35C235		0.95	2.35	2.97	1.49	1.60	1.70	±17		2	7.60
35C250		1.00	2.50	3.14	1.49	1.60	1.70	±17		2	7.60
35C270		1.10	2.70	3.36	1.49	1.60	1.70	±17		2	7.65
35C300		1.20	3.00	3.74	1.49	1.60	1.70	±17		3	7.65
35C330		1.30	3.30	4.12	1.49	1.60	1.70	±17		3	7.65
35C360		1.45	3.60	4.55	1.49	1.60	1.70	±17		3	7.65
35C440		1.80	4.40	5.35	1.49	1.64	1.70	±17		3	7.70
50C250	0.50	1.05	2.50	3.21	1.49	1.60	1.70	±17	0.97	2	7.60
50C270		1.10	2.70	3.47	1.49	1.60	1.70	±17		2	7.60
50C290		1.15	2.90	3.71	1.49	1.60	1.70	±17		2	7.60
50C310		1.25	3.10	3.95	1.49	1.60	1.70	±14		3	7.65
50C330		1.35	3.30	4.20	1.49	1.60	1.70	±14		3	7.65
50C350		1.50	3.50	4.45	1.50	1.60	1.70	±12		5	7.65
50C400		1.70	4.00	5.10	1.53	1.63	1.73	±12		5	7.70
50C470		2.00	4.70	5.90	1.54	1.64	1.74	±10		10	7.70
50C530		2.30	5.30	6.66	1.56	1.65	1.75	±10		10	7.70
50C600		2.60	6.00	7.53	1.57	1.66	1.76	±10		10	7.75
50C630		2.80	6.30	7.90	1.58	1.68	1.76	±10		10	7.75
50C700		3.00	7.00	8.79	1.60	1.69	1.77	±10		10	7.80
50C800		3.60	8.00	10.06	1.60	1.70	1.78	±10		10	7.80
50C900		3.80	9.00	11.31	1.61	1.70	1.78	±10		10	7.80
50C940		4.20	9.40	11.84	1.62	1.72	1.81	±8		10	7.85
50C1000		4.40	10.0	11.90	1.62	1.72	1.81	±10		10	7.85
65C310	0.65	1.25	3.10	4.08	1.49	1.60	1.70	±15	0.97	2	7.60
65C330		1.35	3.30	4.30	1.49	1.60	1.70	±15		2	7.60
65C350		1.50	3.50	4.57	1.49	1.60	1.70	±14		2	7.60
65C400		1.70	4.00	5.20	1.52	1.62	1.72	±14		2	7.65
65C470		2.00	4.70	6.13	1.53	1.63	1.73	±12		5	7.65
65C530		2.30	5.30	6.84	1.54	1.64	1.74	±12		5	7.70
65C600		2.60	6.00	7.71	1.56	1.66	1.76	±10		10	7.75

65C700		3.00	7.00	8.98	1.57	1.67	1.76	±10		10	7.75
65C800		3.60	8.00	10.26	1.60	1.70	1.78	±10		10	7.80
65C1000		4.40	10.0	12.77	1.61	1.71	1.80	±10		10	7.85
100C600	1.00	2.60	6.00	8.14	1.53	1.63	1.72	±10	0.98	2	7.60
100C700		3.00	7.00	9.38	1.54	1.64	1.73	±8		3	7.65
100C800		3.60	8.00	10.70	1.56	1.66	1.75	±6		5	7.70
100C1000		4.40	10.00	13.39	1.58	1.68	1.76	±6		10	7.80
100C1300		5.80	13.00	17.34	1.60	1.70	1.78	±6		10	7.80

NOTES

1 Properties tested and reported at 60 Hz shall conform to the specified values of above table when tested in importing country at 50 Hz.

2 a.c. Magnetisation can be checked and reported in any value between 2 500 to 10 000 A/m as per mutual agreement apart from above (at 2 500, 5 000 and 10 000).

3 In case any grade that is not covered in Table 1 can be considered, and if the grade designation as defined in clause 4 is followed and properties are certified based on the values in Table 1 to the nearest thickness and then the next best grade within the table.

(MTD 04)