## **BUREAU OF INDIAN STANDARDS**

### **Program of Work**

## ETD 33: Winding Wire

Scope: To prepare standards for wires for electrical winding irrrespective of conductor material, shape

or type of covering taking into account the needs in the fields of electrotechnology

Liaison: **IEC TC-55 (P):** Winding wires

#### **Published Standards** S.No TITLE Reaffirm M-Y IS No. No. of Amds Eqv. Specification for aromatic IS 11174: 1984 March, 2021 Indigenous Reviewed In: 2021 polyimide paper covered rectangular and square copper wires with temperature index 200 IS 11184 : 1984 March, 2021 Indigenous Specification for enamelled and Reviewed In: 2021 varnish bonded glass fibre covered round copper wires IS 11395 : 1985 March, 2020 Indigenous Specification for tape wrapped Reviewed In: 2020 round copper wires with temperature index 220 IS 11597 : 1986 Specification for polyeste - R tape March, 2021 4 Indigenous Reviewed In: 2021 wrapped, varnish bonded glass -Fibre covered rectangular copper conductors 5 IS 13343 : 1992 Guide for thermal endurance of August, 2018 Indigenous Reviewed In: 2018 enamelled and varnish bonded glass covered rectangular copper conductor IS 13730 (Part 0/Sec Specifications for particular types September, 2024 Identical under dual 1 1):2018 of winding wires: Part 0 general numbering EC 60317-0-1 : 2013 requirements: Sec 1 enamelled Reviewed In: 2024 round copper wire (Second IEC 60317-0-1: Revision) 2013 IS 13730 (Part 0/Sec Particular Types of Winding Wires Identical under dual â€" Specifications Part 0 General 2):2024 numbering IEC 60317-0-2:2020 Requirements Section 2 Enamelled **IEC** Rectangular Copper Wire (Third 60317-0-2:2020 Revision) IS 13730 (Part 0/Sec Specifications for particular types September, 2024 Identical under dual 2):2018 of winding wires: Part 0 general numbering IEC 60317-0-2: requirements: Sec 2 enamelled 2013 rectangular copper wire (Second Reviewed In: 2024 Revision) **IEC** 60317-0-2:2020 IS 13730 (Part 0/Sec Specifications for particular types September, 2024 Identical under dual 3):2012 of winding wires: Part 0 general numbering

1	Reviewed In: 2024	requirements: Sec 3 enamelled		I	1
	IEC 60317-0-3	round aluminium wire (First			
	ILC 00317 0 3	Revision)			
10	IS 13730 (Part 0/Sec	-	September, 2024	_	Identical under dual
	4): 2018	of winding wires: Part 0 general	5 <b>-</b> promo <i>e</i> 1, 2-52.		numbering
	,,,====	requirements: Sec 4 glass - Fibre			
	Reviewed In: 2024	wound resin or varnish			
	IEC 60317-0-4:	impregnated, bare or enamelled			
	2015	rectangular copper wire (Second			
		Revision)			
11	IS 13730 (Part 0/Sec	Specifications for particular types	September, 2024	-	Identical under dual
	5): 2012	of winding wires: Part 0 general	•		numbering
	EC 60317-0-5	requirements: Sec 5 glass - Fibre			
	Reviewed In: 2024	braided, resin or varnish			
	IEC 60317-0-5	impregnated, bare or enamelled			
		rectangular copper wire (First			
		Revision)			
12	IS 13730 (Part 0/Sec	1 1	September, 2024	-	Identical under dual
	6): 2012	of winding wires: Part 0 general			numbering
	EC 60317-0-6	requirements: Sec 6 glass - Fibre			
	Reviewed In: 2024	wound resin or varnish			
	EC 60317-0-6	impregnated, bare or enamelled			
		round copper wire			
13	IS 13730 (Part 1):	Particular types of winding wires:	September, 2024	-	Identical under dual
	1993	Part 1 Polyvinyl acetal enamelled			numbering
	Reviewed In: 2024	round copper wire, class 105			
	IEC 60317-1:1988	(superseeding by IS 4800(Part			
1.4	IC 12720 (D- + 2)	4):1968	C		T.14'1111
14	IS 13730 (Part 2): 2018	Specification for particular types	September, 2024	-	Identical under dual
	EC 60317-2 : 2012	of winding wires: Part 2 solderable polyurethane enamelled round			numbering
	Reviewed In : 2024	copper wire, class 130, with a			
	IEC 60317-2: 2012	bonding layer (Second Revision)			
15	IS 13730 (Part 3):	Specifications for particular types	September, 2024	_	Identical under dual
	2012	of winding wires: Part 3 polyester	September, 2021		numbering
		enamelled round copper wire, class			numo umg
	Reviewed In: 2024	155 (First Revision)			
	IEC 60317-3	,			
16	IS 13730 (Part 4):	Specification for particular types	September, 2024	-	Identical under dual
	2018	of winding wires: Part 4 solderable	•		numbering
	IEC 60317-4:2015	polyurethane enamelled round			
	Reviewed In: 2024	copper wire, class 130, (Second			
	IEC 60317-4	Revision)			
17	IS 13730 (Part 5):	Specification for Particular Types	September, 2024	-	Modified/Technically
	2018	of Winding Wires Part 5 Polyester			Equivalent
		Enamelled Round Aluminium			
	Reviewed In: 2024	Wire, Class 155			
	IEC 60317-5				No. 1101 1777 5 1 77
18	IS 13730 (Part 6):	Specification for particular types	March, 2021	-	Modified/Technically
	1994	of winding wires: Part 6 oleo -			Equivalent
	Reviewed In: 2021	Resinous enamelled round			
	Reaffirmed but not	aluminium wire, class 105			
	taken up for revision IEC 60317-6				
19	IS 13730 (Part 8):	Specification for particular types	September, 2024	+	Identical under dual
17	2014	of winding wires: Part 8	5cptcmoci, 2024	]	numbering
	IEC 60317-8 : 2010	polyesterimide enamelled round			numbering
	Reviewed In : 2024	copper wire, class 180 (First			
	IEC 60317-8:2010	Revision)			
	-22 00017 0.2010	1000001)		<del> </del>	1

20	IS 13730 (Part 9): 1994 Reviewed In: 2021 Reaffirmed but not taken up for revision IEC 60317-9	Specification for particular types of winding wires: Part 9 polyester enamelled round aluminium wire, class 138	March, 2021	-	Modified/Technically Equivalent
	IS 13730 (Part 12): 2012 IEC 60317-12: 2010 Reviewed In: 2024 IEC 60317-12: 2010	Specifications for particular types of winding wires: Part 12 polyvinyl acetal enamelled round copper wire, class 120	September, 2024	-	Identical under dual numbering
	2014 IEC 60317-13 : 2010 Reviewed In : 2024	Specifications for particular types of winding wires: Part 13 polyester or polyesterimide overcoated with polyamide - Imide enamelled round copper wire, class 200 (First Revision)	September, 2024	-	Identical under dual numbering
	IS 13730 (Part 15): 1994 IEC 60317-15 Reviewed In: 2021 Reaffirmed but not taken up for revision IEC 60317-15: 2010	Particular types of winding wires: Part 15 polyesterimide enammelled round aluminium wire, class 180	March, 2021	-	Modified/Technically Equivalent
24		Specifications for particular types of winding wires: Part 16 polyester enamelled rectangular copper wire class 155	September, 2024	1	Identical under dual numbering
	IS 13730 (Part 17):	copper wire, class 105 (First	September, 2024	-	Identical under dual numbering
26	IS 13730 (Part 20): 2018	Specifications for particular types of winding wires: Part 20 solderable polyurethane enamelled round copper wire, class 155 (Second Revision)	September, 2024	-	Identical under dual numbering
27		Specifications for particular types of winding wires: Part 21 solderable polyurethane enamelled round copper wire overcoated with polyamide, class 155	September, 2024	-	Identical under dual numbering
28	IS 13730 (Part 23) : 2017 IEC 60317-23 : 2013	Specifications for particular types of winding wires: Part 23	September, 2024	-	Identical under dual numbering
29	IS 13730 (Part 25):	Specifications for particular types of winding wires: Part 25 polyester or polyesterimide overcoated with polyamide - Imide enamelled round aluminium wire, class 200	March, 2021	-	Identical under dual numbering
30	IS 13730 (Part 26): 1996 IEC 60317-26	Specifications for particular types of winding wires: Part 26 polyamide - Imide enamelled	June, 2018	1	Identical under dual numbering

ı	Reviewed In: 2018	round conner wire class 200		I	I
	Reaffirmed but not	round copper wire, class 200			
	taken up for revision				
	IEC 60317-26				
31	IS 13730 (Part 27):	Specifications for Particular Types	September, 2024	-	Identical under dual
	2018	of Winding Wires Part 27 Paper			numbering
		Tape Covered Rectangular Copper			
	Reviewed In: 2024	Wire ( First Revision )			
	IEC 60317-27		~		
32	IS 13730 (Part 28):	Specifications for particular types	September, 2024	-	Identical under dual
	2018 IEC 60317-28 : 2013	of winding wires: Part 28 polyesterimide enamelled			numbering
	Reviewed In : 2024	rectangular copper wire, class 180			
	IEC 60317-28	(First Revision)			
33	IS 13730 (Part 29):	Specifications for particular types	September, 2024	1	Identical under dual
	1996	of winding wires: Part 29 polyester	1 /		numbering
	IEC 60317-29	or polyesterimide overcoated with			
	Reviewed In: 2024	polyamide - Imide enamelled			
	IEC 60317-29	rectangular copper wire, class 200			
34	IS 13730 (Part 31):	Specifications for particular types	September, 2024	-	Identical under dual
	2018 IEC 60317-31 : 2015	of winding wires: Part 31 glass			numbering
	Reviewed In: 2024	fibre wound, resin or varnish impregnated, bare or enamelled			
	IEC 60317-31	rectangular copper wire,			
	IEC 00317-31	temperature index 180 (First			
		Revision)			
35	IS 13730 (Part 32):	Specifications for particular types	September, 2024	-	Identical under dual
	2018	of winding wires: Part 32 glass	1		numbering
	IEC 60317-32 : 2015	fibre wound, resin or varnish			
	Reviewed In: 2024	impregnated, bare or enamelled			
	IEC 60317-32	rectangular copper wire,			
		temperature index 155 (First			
26	IC 12720 (D- + 22)	Revision)	C12024		T.1
36	IS 13730 (Part 33) : 2018	Specifications for particular types of winding wires: Part 33 glass	September, 2024	-	Identical under dual numbering
	IEC 60317-33 : 2015	ē			numbering
	Reviewed In : 2024	impregnated, bare or enamelled			
	IEC 60317-33	rectangular copper wire,			
		temperature index 200 (First			
		Revision)			
37	IS 13730 (Part 34):	Specifications for particular types	March, 2021	-	Identical under dual
	2000	of winding wires: Part 34 polyester			numbering
	IEC 60317-34	enamelled round copper wire, class			
	Reviewed In : 2021	130 L (First Revision)			
38	IEC 60317-34 IS 13730 (Part 35):	Specifications for particular types	January, 2024	_	Identical under dual
] 30	2017	of winding wires: Part 35	January, 2024	]	numbering
		solderable polyurethane enamelled			indinocinis
		round copper wire, class 155, with			
L_	IEC 60317-35:2013	a bonding layer			
39	IS 13730 (Part 36):	Specifications for particular types	September, 2024	<u> </u>	Identical under dual
	2017	of winding wires: Part 36			numbering
	IEC 60317-36 : 2013	- ·			
		enamelled round copper wire, class			
40	IEC 60317-36:2013	180, with a bonding layer	Contourless 2024		Identical and a dead
40	IS 13730 (Part 37): 2017	Specifications for particular types of winding wires: Part 37	September, 2024	_	Identical under dual numbering
	IEC 60317-37 : 2013				numbering
	Reviewed In : 2024	copper wire, class 180, with a			
				I	1

l	IEC 60317-37:2013	bonding layer		1	I
41	IS 13730 (Part 38):		September, 2024	-	Identical under dual
	2018	of winding wires: Part 38 polyester			numbering
		or polyesterimide overcoated with			
	Reviewed In: 2024	polyamide - Imide, enamelled			
	IEC 60317-38	round copper wire, class 200, with			
- 12	XG 40700 (D 20)	a bonding layer	9 1 2024		
42	IS 13730 (Part 39):	Specifications for particular types	September, 2024	-	Identical under dual
	2018 IEC 60317-39 : 2015	of winding wires: Part 39 glass - Fibre braided resin or varnish -			numbering
	Reviewed In : 2024	Impregnated, bare or enamelled			
	IEC 60317-39	rectangular copper wire,			
	ILC 00317-37	temperature index 180 (First			
		Revision)			
43	IS 13730 (Part 43):	Specification for particular types	September, 2024	-	Identical under dual
	2013	of winding wires: Part 43 aromatic	1		numbering
	IEC 60317-43	polyimide tape wrapped round			_
	Reviewed In: 2024	copper wire, class 240 (First			
	IEC 60317-43	Revision)			
44	IS 13730 (Part 44):	Specification for particular types	September, 2024	-	Identical under dual
	2013	of winding wires: Part 44 aromatic			numbering
	IEC 60317-44	polyimide tape wrapped			
	Reviewed In: 2024 IEC 60317-44	rectangular copper wire, class 240 (First Revision)			
45	IS 13730 (Part 45):	Specifications for particular types	June, 2024	_	Identical under dual
73	1999	of winding wires: Part 45 polyester	June, 2024		numbering
	IEC 60317-45	enamelled round copper wire, class			numo vimg
	Reviewed In: 2024	130			
	Reaffirmed but not				
	taken up for revision				
	IEC 60317-45				
46	IS 13730 (Part 46):		September, 2024	-	Identical under dual
	2017	of winding wires: Part 46 aromatic			numbering
	Reviewed In: 2024	polyimide enamelled round copper wire, class 240			
	IEC 60317-46:2013	*			
47	IS 13730 (Part 47):		September, 2024	_	Identical under dual
''	2017	of winding wires: Part 47 aromatic	5 <b>-</b> promo <i>c</i> r, 202.		numbering
	IEC 60317-47 : 2013				
	Reviewed In: 2024	copper wire, class 240			
	IEC 60317-47:2013				
48	IS 13730 (Part 48):	Specifications for particular types	September, 2024	-	Identical under dual
	2018	of winding wires: Part 48 glass -			numbering
	IEC 60217-48 : 2012				
	Reviewed In: 2024 IEC 60317-48	impregnated, bare or enamelled round copper wire, temperature			
	ILC 00317-40	index 155 (First Revision)			
49	IS 13730 (Part 49):	Specifications for particular types	September, 2024	-	Identical under dual
	2018	of winding wires: Part 49 glass -	, <b></b> .		numbering
	IEC 60317-49 : 2012				
	Reviewed In: 2024	resin or varnish - Impregnated,			
	IEC 60317-49	bare or enamelled round copper			
	IO 10700 (D. 70)	wire, class 180 (First Revision)			T1
50	IS 13730 (Part 50):	Specifications for particular types	September, 2024	-	Identical under dual
	2018 IEC 60317-50 : 2012	of winding wires: Part 50 glass - Fibre wound, silicone resin or			numbering
	Reviewed In : 2024	varnish impregnated, bare or			
	IEC 60317-50	enamelled round copper wire, class			
		200 (First Revision)			
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51	2018	Specifications for particular types of winding wires: Part 53 aromatic polyimide (Aramid) tape wrapped rectangular copper wire, temperature index 220 (First Revision)	September, 2024	-	Identical under dual numbering
52	IS 13778 (Part 1): 2011 IEC 60851-1: 1996 Reviewed In: 2021 IEC 60851-1: 1996	Winding wires - Test methods: Part 1 general (First Revision)	March, 2021	-	Identical under dual numbering
53	IS 13778 (Part 2): 2013 IEC 60851-2 Reviewed In: 2024 IEC 60851-2	Winding wires - Test methods: Part 2 determination of dimensions (First Revision)	September, 2024	-	Identical under dual numbering
54	IS 13778 (Part 3): 2012 IEC 60851-3 Reviewed In: 2024 IEC 60851-3	Winding wires - Test methods: Part 3 mechanical properties (First Revision)	September, 2024	-	Identical under dual numbering
55	IS 13778 (Part 4): 2018 IEC 60851-4: 2016 Reviewed In: 2024 IEC 60851-4	Winding wires - Test methods: Part 4 chemical properties (Second Revision)	September, 2024	-	Identical under dual numbering
56	IS 13778 (Part 5): 2012 IEC 60851-5 Reviewed In: 2024 IEC 60851-5	Winding wires - Test methods: Part 5 electrical properties (First Revision)	September, 2024	-	Identical under dual numbering
57		Winding wires - Test methods: Part 6 thermal properties (Second Revision)	September, 2024	-	Identical under dual numbering
58		Packaging of winding wires: Part 2 cylindrical barrelled delivery spools: Sec 1 basic dimensions	March, 2021	1	Identical under dual numbering
59		Packaging of winding wires: Part 2 cylindrical barrelled delivery spools: Sec 2 specification for returnable spools made fromThermoplastic materials	March, 2021	1	Identical under dual numbering
60	IS 14841 (Part 3/Sec 1): 2000 IEC 60264-3-1 Reviewed In: 2021 IEC 60264-3-1	Packag - Ing of winding wires: Part 3 taper barrelled delivery spools: Sec 1 basic dimensions	March, 2021	-	Identical under dual numbering
61		Packaging of winding wires: Part 3 taper barrelled delivery spools: Sec 2 specification for returnable spools made fromThermoplastic materials	March, 2021	-	Identical under dual numbering
62	IS 14841 (Part 3/Sec	Packaging of winding wires: Part 3 taper barrelled dellVery spools: Sec 3 specification for non -	March, 2021	1	Identical under dual numbering

	IEC 60264-3-3	Returnable spools made from thermoplastic material			
63	IS 14841 (Part 3/Sec 4) : 2000 Reviewed In : 2024	Packaging of winding wires: Part 3 taper barrelled delivery spools: Sec 4 basic dimensions of containers	September, 2024	-	Identical under dual numbering
64	IEC 60264-3-4 IS 14841 (Part 4/Sec	for taper barrelled delivery spools Packaging of winding wires: Part 4	September, 2024	_	Identical under dual
	1): 2013 methods of test: Sec 1 delivery spools made from thermoplastic materials (First Revision)		54,000,000		numbering
65	IS 2069 : 1991 Reviewed In : 2021	Drums for covered winding wires and strips for electrical purposes - Specification (Second Revision)	March, 2021	-	Indigenous
66	IS 5825 : 2024 IEC 60172:2020 IEC 60172:2020	Test Procedure for the Determination of the Temperature Index of Enamelled and Tape Wrapped Winding Wires (Third Revision)		-	Identical under dual numbering
67	IS 5825 : 2018 IEC 60172 : 2015 Reviewed In : 2024 IEC 60172:2020	Test procedure for the determination of the temperature index of enamelled and tape wrapped winding wires (Second Revision)	January, 2024	-	Identical under dual numbering
68			June, 2018	4	Modified/Technically Equivalent
69	IS 6162 (Part 2): 1971 Reviewed In: 2018 B.S. 2776: Part 2: 1956	Specification for paper covered aluminium conductors: Part 2 rectangular conductors	June, 2018	5	Modified/Technically Equivalent
70	IS 6181 : 1971 Reviewed In : 2018 Document 70/3817 Draft British Standard Specification	Specification for varnish bonded glass - Fibre braided rectangular copper conductors	June, 2018	1	Modified/Technically Equivalent
71	IS 7391 (Part 1): 1974 Reviewed In: 2018 IEC Pub 182-1(1964)	Specification For cotton Covered Copper Conductors : Part 1 round conductors	June, 2018	2	Modified/Technically Equivalent
72	IS 7391 (Part 2): 1974 Reviewed In: 2018	Specification for cotton covered copper conductors: Part 2 rectangular conductors	June, 2018	-	Indigenous
73	IS 7404 (Part 1): 1991 Reviewed In: 2021	Paper covered copper conductors - Specification: Part 1 round conductors (First Revision)	March, 2021	-	Indigenous
74	IS 7576 : 1974 Reviewed In : 2018 BS : 4770 : 197 1	Specification for bunched enamelled copper wires with silk covering	June, 2018	-	Modified/Technically Equivalent
75	IS 8572 : 1993 Reviewed In : 2018	Paper - Covered flexible/stranded copper conductors for transformer leads - Specification (First Revision)	June, 2018	-	Indigenous
76	IS 8783 (Part 1):	Winding wires for submersible	March, 2021	2	Indigenous

	1995	motors - Specification: Part 1			
	Reviewed In: 2021	conductor data (First Revision)			
77	IS 8783 (Part 2):	Winding wires for submersible	March, 2021	2	Indigenous
	1995	motors - Specification: Part 2			
	Reviewed In: 2021	materials for dielectric and jacket			
		(First Revision)			
78	IS 8783 (Part 3):	Winding wires for submersible	March, 2021	2	Indigenous
	1995	motors - Specification: Part 3			
	Reviewed In: 2021	methods of tests			
79	IS 8783 (Part 4/Sec	Winding wires for submersible	March, 2021	1	Indigenous
	1): 1995	motors - Specification: Part 4			
	Reviewed In: 2021	specification for indmdual wires:			
		Sec 1 HR PVC insulated wires			
	(First Revision)				
80	IS 8783 (Part 4/Sec	Winding wires for submersible	March, 2021	-	Indigenous
	2): 1995	motors - specification: Part 4			
	Reviewed In: 2021	specification for individual wires:			
		Sec 2 crosslinked polyethylene			
		insulated and polyamide jacketed			
		wires (First Revision)			
81	IS 8783 (Part 4/Sec	Winding wires for submersible	March, 2021	1	Indigenous
	3): 1995	motors - Specification: Part 4			
	Reviewed In: 2021	specification for individual wires:			
		Sec 3 polyester and polypropylene			
		insulated winding wires (First			
		Revision)			
82	IS 9778 : 1981	Guide for evaluation of thermal	March, 2021	1	Indigenous
	Reviewed In: 2021	endurance of varnish bonded glass			
		fibre covered rectangular copper			
		conductors			

# **Standards under Development**

Projects Approved			
SI. No.	Doc No.	Title	
	No Records Found		

	Preliminary Draft Standards		
SI. No.	Doc No.	Title	
1	ETD 33 (26788) Revision	Specifications for particular types of winding wires Part 0 General requirements Section 3	
	of: IS 13730:2012	Enamelled round aluminium wire Second Revision	
2	ETD 33 (26796) Revision	Specification for cottoncovered copper conductors Part 1 round conductors	
	of: IS 7391:1974		
3	ETD 33 (26799) Revision	Specification for cotton covered copper conductors Part 2 rectangular conductors	
	of: IS 7391:1974		
4	ETD 33 (26814) Revision	Paper - Covered flexiblestranded copper conductors for transformer leads - Specification Second	
	of: IS 8572:1993	Revision	

	Drafts Standards in WC Stage		
SI. No.	Doc No.	Title	
1	ETD 33 (26620) Revision	Drums for covered winding wires and strips for electrical purposes - Specification	
	of: IS 2069:1991		
2	ETD 33 (26903) Revision	Specifications for particular types of winding wires - Part 57 Polyamide-imide enameled round	
	of: IS 13730:1996	copper wire class 220	
3	ETD 33 (26934)	Specifications for particular types of winding wires - Part 27-1 Paper tape covered round copper	

		wire
4	ETD 33 (26935)	Specifications for particular types of winding wires Part 27-2 Paper tape covered round aluminium
		wire
5	ETD 33 (26936)	Specifications for particular types of winding wires Part 27-3 Paper tape covered rectangular
		copper wire
6	ETD 33 (26938)	Specifications for particular types of winding wires - Part 27-4 Paper tape covered rectangular
		aluminium wire

	Draft Standards Completed WC Stage			
SI. No.	Doc No.	Title		
	No Records Found			

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

		Finalized Draft Indian Standards under Print
SI. No.	Doc No.	Title
1	ETD 33 (25286) Revision	Specification for particular types of winding wires Part 0 General requirements Sec 4 glass - Fibre
	of: IS 13730:2018	wound resin or varnish impregnated bare or enamelled rectangular copper wire Third Revision
2	ETD 33 (25289) Revision	Specifications for particular types of winding wires - Part 0-6 General requirements - Glass-fibre
	of: IS 13730:2012	wound resin or varnish impregnated bare or enamelled round copper wire
3	ETD 33 (25293) Revision	Specification for particular types of winding wires Part 1 Polyvinyl acetal enamelled round copper
	of: IS 13730:1993	wire class 105
4	ETD 33 (25296) Revision	Specifications for particular types of winding wires Part 2 Solderable polyurethane enamelled
	of: IS 13730:2018	round copper wire class 130 with a bonding layer
5	ETD 33 (25297) Revision	Particular types of winding wires Specipication Part 12 Polyvinyl acetal enamelled round copper
	of: IS 13730:2012	wire class 120 First Revision
6	ETD 33 (25298) Revision	Specification for particular types of winding wires Part 17 Polyvinyl acetal enamelled rectangular
	of: IS 13730:2014	copper wire class 105
7	ETD 33 (25300)	Specifications for particular types of winding wires Part 20 solderable polyurethane enamelled
		round copper wire class 155 Second Revision Amendment - 1
8	ETD 33 (25301)	Specifications for particular types of winding wires Part 21 solderable polyurethane enamelled
		round copper wire overcoated with polyamide class 155 Amendment - 1
9	ETD 33 (25302)	Specifications for particular types of winding wires Part 23 solderable polyesterimide enamelled
		round copper wire class 180 Amendment - 1
10	ETD 33 (25303) Revision	Specifications for particular types of winding wires Part 25 Polyester or polyesterimide overcoated
	of: IS 13730:2015	with polyamide-imide enamelled round aluminium wire class 200
11	ETD 33 (25304)	Specifications for particular types of winding wires Part 35 solderable polyurethane enamelled
		round copper wire class 155 with a bonding layer Amendment - 1
12	ETD 33 (25305)	Specifications for particular types of winding wires Part 36 solderable polyesterimide enamelled
		round copper wire class 180 with a bonding layer Amendment - 1
13	ETD 33 (25306) Revision	Winding wires - Test methods Part 1 General Second Revision
	of: IS 13778:2011	
14	ETD 33 (25308)	Winding wires - Test methods Part 2 determination of dimensions First Revision Amendment - 1
15	ETD 33 (25309) Revision	Winding wires - Test methods Part 3 Mechanical properties
	of: IS 13778:2012	
16	ETD 33 (25310)	Winding wires - Test methods Part 5 electrical properties First Revision Amendment - 1
17	ETD 33 (25311)	Continuously Transposed Conductor CTC Copper Winding Wires

Total Published Standards:80 Total Standards Under development:27

Aspect Wise Report
Product: 64

Code of Practices: 2
Methods of Test: 8
Terminology: 0
Dimensions: 4
System Standard: 0
Safety Standard: 0
Others: 2

Service Specification : 0 Process Specification : 0 Unclassified : 0

## Annexure-I :List of Indian Standards Withdrawn/Superseded

SI. No.	IS No. & Year	Title
1	IS 10031:1981	Taper Barrelled Delivery Spools For Covered Round Electrical Winding Wires
	Reviewed In: 2015	
2	IS 10114 : 1982	Enamelled and varnish bonded glass covered rectangular copper wires
3	IS 10452 (Part 1): 1983	Methods of tests for covered conductors for electrical equipment Part 1 Paper covered and cotton covered conductors
4	IS 10452 (Part 2): 1983	Methods of tests for covered conductors for electrical equipment Part 2 Fibrous covered conductors
5	IS 13730 (Part 7): 1993 Reviewed In: 2013	Articular Types Of Winding Wires Part 7 Polyimide Enamelled Round Copper Wireclass 220 superseeds Is 4800 part 11 1981
6	IS 1594 : 1960	Metric sizes of copper wires and conductors for electrical purposes
7	IS 1595 : 1967	Enamelled round copper wire with high mechanical properties
8	IS 1666 : 1961	Paper-covered rectangular copper conductors for transformer windings
9	IS 2068 : 1962	Cotton Covered Rectangular Copper Conductors
10	IS 2659 : 1964	Enamelled round copper wire for elevated temperatures
11	IS 3454 : 1966	Paper-covered Round Copper Conductors
12	IS 3855 (Part 1): 1978	Rectangular and square enamelled copper conductors Part 1 Thickness of enamel coating
13	IS 3855 (Part 2): 1979	Rectangular and square enamelled copper conductors Part 2 Methods of tests
14	IS 3855 (Part 3): 1978	Rectangular and square enamelled copper conductors Part 3 Wires with high mechanical properties
15	IS 3855 (Part 4): 1981	Rectangular and square enamelled copper conductors Part 4 Wires with temperature indes 155
16	IS 3855 (Part 5): 1984	Rectangular and square enamelled copper conductors Part 5 Wire with temperature indes 180
17	IS 396 : 1953	Bare annealed high-conductivity copper wire for electrical machinery and apparatus tentative
18	IS 449 : 1962	Enamelled high-conductivity annealed round copper wire oleoresinous enamel Revised
19	IS 450 : 1964	Cotton Covered Round Copper Conductors
20	IS 4685 (Part 1): 1968 Reviewed In: 2015	Varnish bonded glass-fibre covered copper conductors Part 1 Round wires
21	IS 4685 (Part 2) : 1984	Varnish bonded glass-fibre covered copper conductors Part 2 Rectangular conductors
22	IS 4718 : 1968	Multiple paper-covered round copper conductors
23	IS 4800 (Part 1): 1968	Enamelled round winding wires Part 1 Conductors data

24	IS 4800 (Part 2): 1968	Enamelled round winding wires Part 2 Maximum overall diameters
25	IS 4800 (Part 3): 1968	Enamelled round winding wires Part 3 Methods of tests
26	IS 4800 (Part 4): 1968	Enamelled round winding wires Part 4 Wires with high mechanical properties
27	IS 4800 (Part 5): 1968	Enamelled round winding wires Part 5 Wires for elevated temperatures
28	IS 4800 (Part 6): 1968	Enamelled round winding wires Part 6 Wires with self-fluxing properties
29	IS 4800 (Part 7): 1970	Enamelled round winding wires Part 7 Wires with good dielectric properties under humid conditions
30	IS 4800 (Part 8): 1970	Enamelled round winding wires Part 8 Wires for use in refrigeration systems
31	IS 4800 (Part 9): 1971	Enamelled round winding wires Part 9 Wires with temperature index 180
32	IS 4800 (Part 10): 1977	Enamelled round winding wires Part 10 Self bonding wires
33	IS 4800 (Part 11): 1981	Enamelled round winding wires Part 11 Wires with temperature index 220
34	IS 4800 (Part 12): 1986	Enamelled round winding wires Part 12 Self bonding wires heat or solvent bonding enamelled round copper wires with temperature index 155
35	IS 4800 (Part 13): 1989	Enamelled round winding wires Part 13 Dual coated wires with temperature index 200
36	IS 4800 (Part 14): 1991	Enamelled round winding wires Part 14 Wires with self fluxing properties and temperature index 155
37	IS 482 : 1981 Reviewed In : 2015	Reels for Covered Round Electrical Winding Wires
38	IS 6160 : 1971	Rectangular conductors for electrical machines
39	IS 7404 (Part 2): 1991	Paper covered copper conductors Part 2 Rectangular conductors
40	IS 9148 : 1979 Reviewed In : 2015	Tape wrapped rectangular and square copper wires with a temperature index of 220

## **Annexure-II :List of Indian Product Standards**

SI. No.	IS No. & Year	Title
1	IS 11174 : 1984	Specification for aromatic polyimide paper covered rectangular and square copper wires with
	Reviewed In: 2021	temperature index 200
2	IS 11184 : 1984	Specification for enamelled and varnish bonded glass fibre covered round copper wires
	Reviewed In: 2021	
3	IS 11395 : 1985	Specification for tape wrapped round copper wires with temperature index 220
	Reviewed In: 2020	
4	IS 11597 : 1986	Specification for polyeste - R tape wrapped varnish bonded glass - Fibre covered rectangular
	Reviewed In: 2021	copper conductors
5	IS 13730 (Part 0/Sec 1):	Specifications for particular types of winding wires Part 0 general requirements Sec 1 enamelled
	2018	round copper wire Second Revision
	EC 60317-0-1 : 2013	
	Reviewed In: 2024 IEC	
	60317-0-1: 2013	
6	IS 13730 (Part 0/Sec 2):	Particular Types of Winding Wires Specifications Part 0 General Requirements Section 2
	2024	Enamelled Rectangular Copper Wire Third Revision
	IEC 60317-0-2:2020	
7	IS 13730 (Part 0/Sec 3):	Specifications for particular types of winding wires Part 0 general requirements Sec 3 enamelled
	2012	round aluminium wire First Revision
	Reviewed In: 2024 IEC	

Ì	60317-0-3	1
8	IS 13730 (Part 0/Sec 4):	Specification for particular types of winding wires Part 0 general requirements Sec 4 glass - Fibre
	2018	wound resin or varnish impregnated bare or enamelled rectangular copper wire Second Revision
	Reviewed In: 2024 IEC	
	60317-0-4: 2015	
9	IS 13730 (Part 0/Sec 5):	Specifications for particular types of winding wires Part 0 general requirements Sec 5 glass - Fibre
	2012	braided resin or varnish impregnated bare or enamelled rectangular copper wire First Revision
	EC 60317-0-5	
	Reviewed In: 2024 IEC	
	60317-0-5	
10	IS 13730 (Part 0/Sec 6):	Specifications for particular types of winding wires Part 0 general requirements Sec 6 glass - Fibre
	2012	wound resin or varnish impregnated bare or enamelled round copper wire
	EC 60317-0-6	
	Reviewed In: 2024 EC	
	60317-0-6	
11	IS 13730 (Part 1): 1993	Particular types of winding wires Part 1 Polyvinyl acetal enamelled round copper wire class 105
	Reviewed In: 2024 IEC	superseeding by IS 4800 Part 4 1968
	60317-1:1988	
12	IS 13730 (Part 2): 2018	Specification for particular types of winding wires Part 2 solderable polyurethane enamelled round
	EC 60317-2 : 2012	copper wire class 130 with a bonding layer Second Revision
	Reviewed In: 2024 IEC	
	60317-2: 2012	
13	IS 13730 (Part 3): 2012	Specifications for particular types of winding wires Part 3 polyester enamelled round copper wire
	IEC 60317-3	class 155 First Revision
	Reviewed In: 2024 IEC	
	60317-3	
14	IS 13730 (Part 4): 2018	Specification for particular types of winding wires Part 4 solderable polyurethane enamelled round
	IEC 60317-4 : 2015	copper wire class 130 Second Revision
	Reviewed In: 2024 IEC	
L	60317-4	
15	IS 13730 (Part 5): 2018	Specification for Particular Types of Winding Wires Part 5 Polyester Enamelled Round
	D 11- 2024 IEC	Aluminium Wire Class 155
	Reviewed In : 2024 IEC 60317-5	
16	IS 13730 (Part 6): 1994	Specification for particular types of winding wires Part 6 oleo - Resinous enamelled round
10	Reviewed In : 2021	aluminium wire class 105
	Reaffirmed but not taken up	
	for revision IEC 60317-6	
17	IS 13730 (Part 8) : 2014	Specification for particular types of winding wires Part 8 polyesterimide enamelled round copper
",	IEC 60317-8 : 2010	wire class 180 First Revision
	Reviewed In : 2024 IEC	"The class 100 I list Revision
	60317-8:2010	
18	IS 13730 (Part 9) : 1994	Specification for particular types of winding wires Part 9 polyester enamelled round aluminium
	Reviewed In: 2021	wire class 138
	Reaffirmed but not taken up	
	for revision IEC 60317-9	
19	IS 13730 (Part 12) : 2012	Specifications for particular types of winding wires Part 12 polyvinyl acetal enamelled round
	IEC 60317-12 : 2010	copper wire class 120
	Reviewed In: 2024 IEC	
	60317-12 : 2010	
20	IS 13730 (Part 13): 2014	Specifications for particular types of winding wires Part 13 polyester or polyesterimide overcoated
	IEC 60317-13 : 2010	with polyamide - Imide enamelled round copper wire class 200 First Revision
	Reviewed In: 2024 IEC	
	60317-13 : 2010	
21	IS 13730 (Part 15): 1994	Particular types of winding wires Part 15 polyesterimide enammelled round aluminium wire class
	IEC 60317-15	180
	Reviewed In: 2021	
	Reaffirmed but not taken up	
I	1	I I

	for revision IEC 60317-15 : 2010	
22	IS 13730 (Part 16) : 1996 IEC 60317-16 Reviewed In : 2024	Specifications for particular types of winding wires Part 16 polyester enamelled rectangular copper wire class 155
	Reaffirmed but not taken up for revision IEC 60317-16	
23	IS 13730 (Part 17) : 2014 IEC 60317-17 : 2010 Reviewed In : 2024 IEC	Specifications for particular types of winding wires Part 17 polyvinyl acetal enamelled rectangular copper wire class 105 First Revision
	60317-17 : 2010	
24	IS 13730 (Part 20) : 2018 IEC 60317-20 : 2013 Reviewed In : 2024 IEC	Specifications for particular types of winding wires Part 20 solderable polyurethane enamelled round copper wire class 155 Second Revision
25	60317-20 IS 13730 (Part 21): 2017 IEC 60317-21: 2013 Reviewed In: 2024 IEC 60317-21:2013	Specifications for particular types of winding wires Part 21 solderable polyurethane enamelled round copper wire overcoated with polyamide class 155
26	IS 13730 (Part 23) : 2017 IEC 60317-23 : 2013 Reviewed In : 2024 IEC 60317-23:2013	Specifications for particular types of winding wires Part 23 solderable polyesterimide enamelled round copper wire class 180
27	IS 13730 (Part 25) : 2015 IEC 60317-25 Reviewed In : 2021 IEC 60317-25	Specifications for particular types of winding wires Part 25 polyester or polyesterimide overcoated with polyamide - Imide enamelled round aluminium wire class 200
28	IS 13730 (Part 26): 1996 IEC 60317-26 Reviewed In: 2018 Reaffirmed but not taken up for revision IEC 60317-26	Specifications for particular types of winding wires Part 26 polyamide - Imide enamelled round copper wire class 200
29	IS 13730 (Part 27) : 2018 IEC 60317-27 : 2013 Reviewed In : 2024 IEC 60317-27	Specifications for Particular Types of Winding Wires Part 27 Paper Tape Covered Rectangular Copper Wire First Revision
30	IS 13730 (Part 28) : 2018 IEC 60317-28 : 2013 Reviewed In : 2024 IEC 60317-28	Specifications for particular types of winding wires Part 28 polyesterimide enamelled rectangular copper wire class 180 First Revision
31	IS 13730 (Part 29) : 1996 IEC 60317-29 Reviewed In : 2024 IEC 60317-29	Specifications for particular types of winding wires Part 29 polyester or polyesterimide overcoated with polyamide - Imide enamelled rectangular copper wire class 200
32	IS 13730 (Part 31) : 2018 IEC 60317-31 : 2015 Reviewed In : 2024 IEC 60317-31	Specifications for particular types of winding wires Part 31 glass fibre wound resin or varnish impregnated bare or enamelled rectangular copper wire temperature index 180 First Revision
33	IS 13730 (Part 32) : 2018 IEC 60317-32 : 2015 Reviewed In : 2024 IEC 60317-32	Specifications for particular types of winding wires Part 32 glass fibre wound resin or varnish impregnated bare or enamelled rectangular copper wire temperature index 155 First Revision
34	IS 13730 (Part 33) : 2018 IEC 60317-33 : 2015 Reviewed In : 2024 IEC 60317-33	Specifications for particular types of winding wires Part 33 glass fibre wound resin or varnish impregnated bare or enamelled rectangular copper wire temperature index 200 First Revision
35	IS 13730 (Part 34) : 2000 IEC 60317-34 Reviewed In : 2021 IEC	Specifications for particular types of winding wires Part 34 polyester enamelled round copper wire class 130 L First Revision

I	60317-34	1
36	IS 13730 (Part 35) : 2017	Specifications for particular types of winding wires Part 35 solderable polyurethane enamelled
	IEC 60317-35 : 2013	round copper wire class 155 with a bonding layer
	Reviewed In: 2024 IEC	Towns copper was come and any or
	60317-35:2013	
37	IS 13730 (Part 36) : 2017	Specifications for particular types of winding wires Part 36 solderable polyesterimide enamelled
31	IEC 60317-36 : 2013	round copper wire class 180 with a bonding layer
	Reviewed In : 2024 IEC	Tound copper wife class 180 with a boliding layer
20	60317-36:2013	
38	IS 13730 (Part 37) : 2017	Specifications for particular types of winding wires Part 37 polyesterimide enamelled round
	IEC 60317-37 : 2013	copper wire class 180 with a bonding layer
	Reviewed In: 2024 IEC	
	60317-37:2013	
39	IS 13730 (Part 38) : 2018	Specifications for particular types of winding wires Part 38 polyester or polyesterimide overcoated
	IEC 60317-38 : 2013	with polyamide - Imide enamelled round copper wire class 200 with a bonding layer
	Reviewed In: 2024 IEC	
	60317-38	
40	IS 13730 (Part 39) : 2018	Specifications for particular types of winding wires Part 39 glass - Fibre braided resin or varnish -
	IEC 60317-39: 2015	Impregnated bare or enamelled rectangular copper wire temperature index 180 First Revision
	Reviewed In: 2024 IEC	
	60317-39	
41	IS 13730 (Part 43): 2013	Specification for particular types of winding wires Part 43 aromatic polyimide tape wrapped round
	IEC 60317-43	copper wire class 240 First Revision
	Reviewed In: 2024 IEC	
	60317-43	
42	IS 13730 (Part 44) : 2013	Specification for particular types of winding wires Part 44 aromatic polyimide tape wrapped
'-	IEC 60317-44	rectangular copper wire class 240 First Revision
	Reviewed In : 2024 IEC	rectangular copper wire class 240 f list revision
	60317-44	
43	IS 13730 (Part 45) : 1999	Specifications for particular types of winding wires Part 45 polyester enamelled round copper wire
73	IEC 60317-45	class 130
	Reviewed In: 2024	Cidss 150
	Reaffirmed but not taken up	
	for revision IEC 60317-45	
44	IS 13730 (Part 46) : 2017	Specifications for particular types of winding wires Part 46 aromatic polyimide enamelled round
1	IEC 60317-46 : 2013	copper wire class 240
	Reviewed In : 2024 IEC	copper wife class 240
4.5	60317-46:2013	
45	IS 13730 (Part 47) : 2017	Specifications for particular types of winding wires Part 47 aromatic polyimide enamelled
	IEC 60317-47 : 2013	rectangular copper wire class 240
	Reviewed In: 2024 IEC	
4.0	60317-47:2013	
46	IS 13730 (Part 48) : 2018	Specifications for particular types of winding wires Part 48 glass - Fibre wound resin or varnish
	IEC 60217-48 : 2012	impregnated bare or enamelled round copper wire temperature index 155 First Revision
	Reviewed In: 2024 IEC	
	60317-48	
47	IS 13730 (Part 49): 2018	Specifications for particular types of winding wires Part 49 glass - Fibre wound high temperature
	IEC 60317-49 : 2012	resin or varnish - Impregnated bare or enamelled round copper wire class 180 First Revision
	Reviewed In: 2024 IEC	
	60317-49	
48	IS 13730 (Part 50): 2018	Specifications for particular types of winding wires Part 50 glass - Fibre wound silicone resin or
	IEC 60317-50 : 2012	varnish impregnated bare or enamelled round copper wire class 200 First Revision
	Reviewed In: 2024 IEC	
	60317-50	
49	IS 13730 (Part 53): 2018	Specifications for particular types of winding wires Part 53 aromatic polyimide Aramid tape
	IEC60317-53:2014	wrapped rectangular copper wire temperature index 220 First Revision
	Reviewed In :	TI C Tr
	2024 IEC60317-53	
50	IS 14841 (Part 2/Sec 2):	Packaging of winding wires Part 2 cylindrical barrelled delivery spools Sec 2 specification for
l	-5 1.5.1 (1 at 2/500 2).	

	2000	returnable spools made fromThermoplastic materials
	IEC 60264-2-2	returnation opposis made from the moralism
	Reviewed In: 2021 IEC	
	60264-2-2	
51	IS 14841 (Part 3/Sec 2):	Packaging of winding wires Part 3 taper barrelled delivery spools Sec 2 specification for
	2000	returnable spools made fromThermoplastic materials
	IEC 60264-3-2	
	Reviewed In: 2021 IEC	
	60264-3-2	
52	IS 14841 (Part 3/Sec 3):	Packaging of winding wires Part 3 taper barrelled dellVery spools Sec 3 specification for non -
	2000	Returnable spools made from thermoplastic material
	Reviewed In: 2021 IEC	
	60264-3-3	
53	IS 2069 : 1991	Drums for covered winding wires and strips for electrical purposes - Specification Second
	Reviewed In: 2021	Revision
54	IS 6162 (Part 1): 1971	Specification for paper - Covered aluminium conductors Part 1 round conductors
	Reviewed In: 2018 IEC	
	Publication 111 (1959), BS	
	2627 : 1961	
55	IS 6162 (Part 2): 1971	Specification for paper covered aluminium conductors Part 2 rectangular conductors
	Reviewed In: 2018 B.S.	
	2776 : Part 2: 1956	
56	IS 6181 : 1971	Specification for varnish bonded glass - Fibre braided rectangular copper conductors
	Reviewed In:	
	2018 Document 70/3817	
	Draft British Standard	
	Specification	
57	IS 7391 (Part 1): 1974	Specification For cotton Covered Copper Conductors Part 1 round conductors
	Reviewed In: 2018 IEC	
	Pub 182-1(1964)	
58	IS 7391 (Part 2): 1974	Specification for cotton covered copper conductors Part 2 rectangular conductors
	Reviewed In: 2018	
59	IS 7404 (Part 1): 1991	Paper covered copper conductors - Specification Part 1 round conductors First Revision
	Reviewed In: 2021	
60	IS 7576 : 1974	Specification for bunched enamelled copper wires with silk covering
	Reviewed In: 2018 BS:	
	4770 : 197 1	
61	IS 8572 : 1993	Paper - Covered flexible stranded copper conductors for transformer leads - Specification First
	Reviewed In: 2018	Revision
62	IS 8783 (Part 4/Sec 1):	Winding wires for submersible motors - Specification Part 4 specification for indmdual wires Sec
	1995	1 HR PVC insulated wires First Revision
	Reviewed In: 2021	
63	IS 8783 (Part 4/Sec 2):	Winding wires for submersible motors - specification Part 4 specification for individual wires Sec
	1995	2 crosslinked polyethylene insulated and polyamide jacketed wires First Revision
	Reviewed In: 2021	
64	IS 8783 (Part 4/Sec 3):	Winding wires for submersible motors - Specification Part 4 specification for individual wires Sec
	1995	3 polyester and polypropylene insulated winding wires First Revision
	Reviewed In: 2021	