BUREAU OF INDIAN STANDARDS

MINUTES

Name of the Committee	No. of Meeting	Day	Date	Time	Venue
Winding Wire Sectional Committee, ETD 33	26	Wednesday	28 August 2024	**14:30 hrs**	Hybrid meeting

CHAIRPERSON: Shri Ratnanav Acharya **MEMBER SECRETARY:** Shri Jatin Tiwari

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Item 0 Welcome and Opening Remarks by the Chairperson

Chairperson gave his opening remarks regarding the importance of updating the pre 2000 standards with current practices as well as withdrawing or archiving the remaining standards.

Item 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

The minutes of the 25nd meeting of Equipment for Winding Wire Sectional Committee, ETD 33 held on 28/6/24 were confirmed.

Item 3 COMPOSITION OF SECTIONAL COMMITTEE ETD 13

3.1 The present composition of ETD 33 with attendance in the last 2 meetings is given at **Annex 1**.

Committee noted the composition.

ITEM 4 PRE 2000 STANDARDS AND CTC DRAFT

4.1 **CTC draft was approved for final printing and publication.**

4.2 According to Annual action plan of BIS following has to be completed this year with IS identified for revision, reaffirmation or archiving :
-All standards are to be reaffirmed after 5 years. Revision can also be taken up.
-Pre 2000 standards are to be withdrawn or revised.
- Standards in which there is no clarity are to be archived. These standards are still active but no work is being done on them.

There are many irrelevant pre2000 standards that are in the program of work of ETD 33. Previously, a list was circulated to get inputs from the working group and various members. No inputs have been received for pre 2000 standards.

Following are decisions taken on the old standards :

Working groups may present their recommendations as well.

IS No.	LATEST IEC	Title	Reaffirmation Details	SCOPE	MEMBER SECRETARY RECOMMENDATION	DECISION
IS 11174 : 1984		Specification for aromatic polyimide paper covered rectangular and square copper wires with temperature index 200	March, 2021	1.This Indian Standard covers aromatic polyimide paper covered copper conductors suitable for temperature index 200. 2.1.2 Sizes - The requirements of this standard are applicable to conductors having thickness from 0.80 up to and including 4.00 mm and width from 3 mm up to and including 13 mm. A schedule of preferred sizes is given in IS : 6160-1971.	"IS 13730 (Part 44) : 2013 IEC 60317-44" IEC 60317-44:1997+AMD 1:2010 CSV Specification for particular types of winding wires: Part 44 aromatic polyimide tape wrapped rectangular copper wire, class 240 (First Revision) covers this standard.	Archive
IS 11184 : 1984		Specification for enamelled and varnish bonded glass fibre covered round copper wires	March, 2021	1.This standard covers the requirements and test methods of enamelled and varnish bonded glass fibre lapped round copper wires. The requirements of enamelled and varnish bonded glass covered rectangular copper wires are coverd in IS: 10114-1982* 2.This standard relates to round copper wires coated with enamel and covered with single or double glass fibre lapped, bonded with a suitable highly polymerised thermosetting varnish. The wires covered by this	Already covered in various parts and sections of IS 13730/IEC 60317 series Licenses are 0 and standard is not referred in any other standard	New Draft

				standard are suitable for temperature index 130, 155, 180 and 200. The type of enamel and varnish shall be based on the temperature index of the wire required by the purchaser. 3. Sizes - The requirements of this standard are applicable to conductors having diameters 0·800 mm to 4000 mm. A schedule of preferred sizes of round conductor is given in Table 1 of IS :4800 (Part I)-1968t.		
IS 11395 : 1985		Specification for tape wrapped round copper wires with temperature index 220	March, 2020	1.This standard relates to IS : 9148-1979*. 2. 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, shall be rounded off in accordance with IS : 2-19607. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard. 3This standard relates to polyimide tape wrapped round conductors suitable for temperature index 220. 4 The tape shall be coated with a suitable adhesive (for example, FEP). After wrapping, the tape shall be heat sealed to form a continuous and adherent sheath. It should be coated with adhesive on one side only. 5 The requirements of the standard are applicable to	Covered in "IS 13730 (Part 53) : 2018 IEC60317-53"- Specifications for particular types of winding wires: Part 53 aromatic polyimide (Aramid) tape wrapped rectangular copper wire, temperature index 220 (First Revision) Licenses are 0 and standard is not referred in any other standard	Withdraw

				conductor sizes from 1-O mm to 5.0 mm diameter.		
IS 11597 : 1986		Specification for polyeste - R tape wrapped, varnish bonded glass - Fibre covered rectangular copper conductors	March, 2021	1 This standard covers the requirements and test methods of polyester tape wrapped, varnish bonded glass-fibre covered rectangular copper conductors. 2 In the preparation of this standard, assistance has been derived from ASTM D 3664- 1978 'Standard specification for biaxially oriented polyethylene terphthalate film for electrical insulation and dielectric application', issued by the American Society for Testing and Materials. 3 This standard relates to rectangular copper conductors which are first wrapped by polyester tape (without any adhesive) in required thickness and subsequently covered with fibre glass and finally bonded with suitable thermosetting varnish depending on required temperature index of the conductor as required by the purchaser.	Covered in "IS 13730 (Part 32) : 2018 IEC 60317-32" IEC 60317-32:2015 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) Licenses are 0 and standard is not referred in any other standard	Withdraw

IS 13343 : 1992		Guide for thermal endurance of enamelled and varnish bonded glass covered rectangular copper conductor	August, 2018	1 The test method covered in this Standard is intended primarily for comparing the thermal endurance of enamelled and varnish bonded glass covered rectangular copper conductors in air at atmospheric pressure. Similar standard for varnish bonded glass fibre covered rectangular copper conductors (IS 9778 :1981) and for enamelled wires (IS 5825 : 1970) are also available. 2 This guide lays down a test procedure for evaluating the useful life of enamelled and varnish bonded glass fibre lapped or braided rectangular copper conductors generally covered in IS 10114 : 1982. The grade of insulation shall be according to IS 10114 : 1982. 3This standard does not apply to unenamelled glass fibre covered rectangular copper conductors.	This is already covered in IS 13778 (Part 6) : 2018 IEC60851-6 : 2012 (Active) Winding wires - Test methods: Part 6 thermal properties (Second Revision) and IEC 60172	Withdraw
IS 13730 (Part 1) : 1993	IEC 60317-1:2010+ AMD1: 2024	Particular types of winding wires: Part 1 Polyvinyl acetal enamelled round copper wire, class 105 (superseeding by IS 4800(Part 4):1968			Being Updated to the latest versioni	Reaffirm

IS 13730 (Part 6) : 1994		Specification for particular types of winding wires: Part 6 oleo - Resinous enamelled round aluminium wire, class 105	March, 2021	1 This statndard is a part of the new series of standards being brought out in dual number with the corresponding IEC Publications. The standards on aluminium wires could not be published in dual number because of differences in requirements of elongation, heat shock, etc, with respect to corresponding IEC requirements. However, clause numbers and format of these standards are kept same as for other standards under the same series. With the publication of this standard along with other related standards, existing Indian Standards on aluminium (Parts of IS 4800 series) wires would be withdrawn. 2 Class 105 is a thermal class that requires a minimum temperature index of 105 and a heat shock temperature of atleast 125°C. 3 The temperature in degrees Celsius corresponding to the temperature index is not necessarily that at which it is recommended that the wire be operated and this will depend on many factors, including the type of equipment involved. The range of nominal conductor diameters covered by this standard is: - Grade 1 : 0,250 mm up to and including 1.000 mm - Grade 2 : 0.250 mm up to and including 1.000 mm The nominal conductor diameters are specified in 4 of IS 13730 (Part O/Set 3) : 1994.	There are no licenses and no corresponding IEC standard. Members are requested to suggest relevance to withdraw or archive.	Archive

IS 13730 (Part 9) : 1994		Specification for particular types of winding wires: Part 9 polyester enamelled round aluminium wire, class 138	March, 2021	1 This statndard is a part of the new series of standards being brought out in dual number with the corresponding IEC Publications. The standards on aluminium wires could not be published in dual number because of differences in requirements of elongation, heat shock, etc, with respect to corresponding IEC requirements. However, clause numbers and format of these standards are kept same as for other standards under the same series. With the publication of this standard along with other related standards, existing Indian Standards on alum&urn (Parts of IS 4800 series) wires would be withdrawn. 2 Class 130 is a thermal class that requires a minimum temperature index of 130 and a heat shock temperature of atleast 155°C. 3The temperature in degrees Celsius corresponding to the temperature index is not necessarily that at which it is recommended that the wire be operated and this will depend on many factors, including the type of equipment involved. The range of nominal conductor diameters covered by this standard is: - Grade 1 : ; ti$ in up to and including. - Grade 2 : O-250 mm up to and including 2.500 mm 4 The nominal conductor diameters are specified in 4 of IS 13730 (Part 0/Set 3) : 1994.	There are no licenses and no corresponding IEC standard. Members are requested to suggest relevance to withdraw or archive.	reaffirm

IS 13730 (Part 15) : 1994		Particular types of winding wires: Part 15 polyesterimide enammelled round aluminium wire, class 180	March, 2021	1 This standard specifies the requirements of enamelled round aluminium winding wire of Class 180 with a sole coating based on polyes-terimide resin, which may be modified, provided it retains the chemical identity of the original resin and meets all specified wire requirements. 2 The range of nominal conductor diameters covered by this standard is: Grade 1: 0.250 mm up to and including 2.500 mm Grade 2 : 0-250 mm up to and including 2.500 mm	There are no licenses and IEC standard has been withdrawn. Approval to withdraw	reaffirm
IS 13730 (Part 16) : 1996 IEC 60317 -16	IEC 60317-16:1990 withdrawn	Specifications for particular types of winding wires: Part 16 polyester enamelled rectangular copper wire class 155	Decem ber, 2016	Class 155 is a thermal class that requires a minimum temperature index of 155 and a heat shock temperature of at least 175 C. The temperature In degrees Celsius corresponding to the temperature index is not necessarily that at which it is recommended that the wire be operated and this will depend on many factors, including the type of equipment involved. The range of nominal conductor dimensions covered by this standard is: - width: min. 20 mm max. 16.0 mm; - thickness: min. 0,80 mm max. 5,60 mm. Wires of grade 1 and grade 2 are induded in this specification and apply to the complete range of conductors. The specified combinations of width and thickness as well as the specified ratio width/thickness are given In IEC 317-0-2.	There are no licenses and IEC standard has been withdrawn. Approval to withdraw	Reaffirm

IS 13730 (Part 26) : 1996 IEC 60317 -26	IEC 60317-26:1990 Withdrawn	Specifications for particular types of winding wires: Part 26 polyamide - Imide enamelled round copper wire, class 200	June, 2018	1 This International Standard specifies the requirements of enamelled round copper winding wire of class 200 with a sole coating based on polamide-imide resin. 2 Class 200 is a thermal class that requires a minimum temperature index of 200 and a heat shock temperature of at least 220 “C. 3 The temperaturesin degrees Celsius corresponding to the temperature index is not necessarily that at which it is recommended that the wire be operated and this will depend on many factors, including the type of equipment involved. The range of nominal conductor diameters covered by this standard is: - Grade 1: 0,071 mm up to and including 1,600 mm; - Grade 2: 0,071 mm up to and including 0,500 mm. The nominal conductor diameters are specified in clause 4 of IEC 317-0-l.	There are no licenses and IEC standard has been withdrawn. Approval to withdraw	Withdraw and replace with IEC 60317-57
IS 13730 (Part 29) : 1996 IEC 60317 -29	IEC 60317-29:1990/AMD 2:2010	Specifications for particular types of winding wires: Part 29 polyester or polyesterimide overcoated with polyamide - Imide enamelled rectangular copper wire, class 200	June, 2019	This International Standard specifies the requirements of enamelled rectanguiar copper winding wire of class 200 with a dual coating. The underlying coating is based on polyester or polyesterimide resin, which may be modified providing it retains the chemical identity of the original resin and meets all specified wire requirements. The superimposed coating is based on polyamide-imide resin.	IEC is same. Ammendment to be adopted standard has to be reaffirmed.	Reaffirm

IS 13730 (Part 45) : 1999 IEC 60317 -45	IEC 60317-45:1998 withdrawn	Specifications for particular types of winding wires: Part 45 polyester enamelled round copper wire, class 130	2019	This part of IEC 60317 specifies the requirements of enamel led round copper winding wire of class 130 with a sole coating based on polyester resin, which may be modified providing it retains the chemical identity of the original resin and meets all specified wire requirements. NOTE - A modified resin is a resin that has undergone a chemical change, or contains one or more additives to enhance certain performance or application characteristics. Class 130 is a thermal class that requires a minimum temperature index of 130 and a heat shock temperature of at least 155 “C. The temperature in degrees Celsius (“C) corresponding to the temperature index is not necessarily that at which it is recommended that the wire be operated and this will depend on many factors, including the type of equipment invoived. The range of nominal conductor diameters covered by this standard is - grade 1:0,050 mm up to and including 3,150 mm; - grade 2:0,050 mm up to and including 5,000 mm. The nominal conductor diameters are specified in clause 4 of IEC 60317-0-1.	There are no licenses and IEC standard has been withdrawn. Approval to withdraw	Reaffirm
IS 6162 (Part 1) : 1971		Specification for paper - Covered aluminium conductors: Part 1 round conductors	June, 2018	1 General — This standard (Part I) gives requirements and tests for round aluminium conductors, covered with two or more layers of paper, primarily intended for transformer windings. 2 Sizes — The requirements of this standard are applicable to conductors having	"IEC 60317-27-2:2020+AMD1: 2024 CSV Specifications for particular types of winding wires - Part 27-2: Paper tape covered round aluminium wire	Replace with IEC 60317-27 series

				diameters 0.500 to 5.000 mm, both inclusive. 3 Grades off Covering — Three grades of covering are specified: a) Double paper covering, Ordinary (O); b) Double paper covering, Fine (F); and c) Multiple paper covering, Special (S).	to be adopted replacing this standard"	
IS 6162 (Part 2) : 1971		Specification for paper covered aluminium conductors: Part 2 rectangular conductors	June, 2018	1 General — This standard (Part II) gives requirements and tests for solid aluminium conductors of rectangular section, covered with two or more layers of paper, primarily intended for transformer windings. 2 Sizes — The requirements of the standard are applicable to conductors having thicknesses from 0.80 up to and including 5.6 mm and widths from 2 up to and including 16 mm. A schedule of preferred sizes is given in IS : 6160 - 1971*. 3 Grades of Covering — Two grades of covering are specified: a) Double Paper Covered — with a minimum total increasc in dimensions of 0.25 mm due to covering; and b) Multiple Paper Covered — with more than two layers of paper.	IEC 60317-27-4:2020+AMD1:2024 CSV Specifications for particular types of winding wires - Part 27-4: Paper tape covered rectangular aluminium wire to be adopted replacing this standard	Replace with IEC 60317-27 series

IS 6181 : 1971		Specification for varnish bonded glass - Fibre braided rectangular copper conductors	June, 2018	1 General — This standard relates to varnish bonded glass fibre covered rectangular copper conductors, the glass covering being a single braid of glass fibre, bonded with a suitable highly polymerized thermo-setting varnish of temperature index at least 130°C. 2 It does not apply to stranded or laminated conductors or to conductors covered with a layer of material other than the bonded glass braid. 3 Sizes — The requirements of this standard are applicable to conductors having thicknesses from 0.80 up to and including 5.6 mm and widths from 2 up to and including 16 mm. A schedule of preferred sizes is given in IS: 6160-1971*. Grades of Covering — Three grades of covering are specified: a) Fine (F), b) Medium (M), and c) Thick (T).	IS 6181:1971 "-Specification For Varnish Bonded Glass-Fiber Braided Rectangular Copper Conductors"as mentioned in the report ; it is already covered under IS 13730 : Part 0 : Sec 5 : 2012 / IEC 60317-0-5 (Reaffirmed Year : 2017)-Particular Types of Winding Wires - Part 0 : General Requirements - Section 5 : Glass-Fibre Braided Resin or Varnish Impregnated, Bare or Enamelled Rectangular Copper Wire.	Withdraw
IS 7391 (Part 1) : 1974		Specification For cotton Covered Copper Conductors : Part 1 round conductors	June, 2018	1 The cotton covered round copper conductors were originally covered in IS : 450-1953 which was first revised in 1964 and is now being superseded by this standard. This standard has been lined up with the latest IEC Recommendations. To cover adequately the properties of cotton yarn, a reference has been made to IS 3567-: 1966* 2 The requirements of this standard are applicable to conductors having diameters 0· 140 to 5· 000	Not used in industry. Approval to withdraw	New draft

				mm.		
IS 7391 (Part 2) : 1974		Specification for cotton covered copper conductors: Part 2 rectangular conductors	June, 2018	1 The requirements of the standard are applicable to conductors having thicknesses from 0’80 up to and including 5’6 mm and widths from 2 up to and including 16 mm, A schedule of preferred sizes is given in IS 6160:1971*. 2 The cotton covered rectangular copper conductors were originally covered in IS : 2068-1962 which is now being superseded by this standard. This standard has been lined up (especially the dimensional aspects 1 with IS : 6160-1971” which is based on the latest IEC Recommendations. To cover adequately the properties of cotton yarn, a reference has been made to IS : 3567-1966t.	Not used in industry. Approval to withdraw	New Draft
IS 7404 (Part 1) : 1991		Paper covered copper conductors - Specification: Part 1 round conductors (First Revision)	March, 2021	The cotton covered round copper conductors were originally covered in IS : 450-1953 which was first revised in 1964 and is now being superseded by this standard. This standard has been lined up with the latest IEC Recommendations. To cover adequately the properties of cotton yarn, a reference has been made to IS : 3567-1966*	IEC 60317-27-1:2020 Specifications for particular types of winding wires - Part 27-1: Paper tape covered round copper wire to be adopted	Replace with IEC 60317-27 series

IS 7576 : 1974		Specification for bunched enamelled copper wires with silk covering	June, 2018	This standard (Part 1) covers requirements and tests for round copper conductors, covered with two or more layers of paper, primarily intended for transformer windings.	IEC 60317-11:1999+AMD 1:2005 CSV Withdrawn Consolidated version Specifications for particular types of winding wires - Part 11: Bunched solderable polyurethane enamelled round copper wires, class 130, with silk covering withdrawn and product not in use	withdraw
IS 8572 : 1993		Paper - Covered flexible/stranded copper conductors for transformer leads - Specification (First Revision)	June, 2018	1 This standard specifies the requirements of paper covered high conductivity annealed copper flexible/stranded conductors to be used as transformer connecting leads.	Product has 0 licenses, standard is not in use	New draft
IS 8783 (Part 1) : 1995		Winding wires for submersible motors - Specification: Part 1 conductor data (First Revision)	March, 2021	1 This standard was originally published in 1978 covering PVC insulated winding wires for submersible motors for 85°C operation. Two other standards on winding wires for submersible motors, namely, IS 10051 : 1981 'Specification for PVC insulated winding wires for submersible motors for 105°C operation' and IS 12788 : 1989 'Specification for PVC insulated winding wires overcoated with nylon for submersible motors' have also been in vogue 2 This standard (Part 1) covers the requirements of		New Draft

				high conductivity annealed round and stranded copper conductors used for winding wires for submersible motors irrespective of types of insulation. The range of size include solid round conductor dia 0.4 mm to 5.0 mm and stranded conductor area 3.58 mm2 to 25.65 mm2 .		
IS 8783 (Part 2) : 1995		Winding wires for submersible motors - Specification: Part 2 materials for dielectric and jacket (First Revision)	March, 2021	1 This standard (Part 2) specifies the requirements of dielectric and jacket materials for winding wires for submersible motors. 2 The types of materials covered by this standard are as given below: Type 1 HR PVC insulated wires for maximum rated conductor temperature of 85°C. Type 2 XLPE insulated and polyamide jacketed wires for maximum rated conductor temperature of 105°C. Type 3 Polyester and polypropylene insulated wires for maximum rated conductor temperature of 105°C.		New Draft
IS 8783 (Part 3) : 1995		Winding wires for submersible motors - Specification: Part 3 methods of tests	March, 2021	1 Two other standards on winding wires for submersible motors, namely, IS 10051 : 1981 ‘Specification for PVC insulated winding wires for submersible motors for 105°C operation’ and IS 12788 : 1989 ‘Specification for PVC insulated winding wires overcoated with nylon for submersible motors’ have also been in vogue. 2This standard prescribes methods of tests for winding wires for submersible motors.		New Draft

IS 8783 (Part 4/Sec 1) : 1995		Winding wires for submersible motors - Specification: Part 4 specification for indmdual wires: Sec 1 HR PVC insulated wires (First Revision)	March, 2021	1 This standard (Part 4/See 1) covers the requirements of high emtductivity annealed round and stranded copper conductor PVC insulated winding wires for submersible motors. 2 The wires covered in this standard are suitable for use where the combination of ambient temperature and temperature rise due to load results in conductor temperature not exceeding 85°C.		New Draft
IS 8783 (Part 4/Sec 2) : 1995		Winding wires for submersible motors - specification: Part 4 specification for individual wires: Sec 2 crosslinked polyethylene insulated and polyamide jacketed wires (First Revision)	March, 2021	1 This standard (Part 4/See 2) covers the requirements of high conductivity annealed solid and stranded copper conductor, crosslinked polyethylene (hereafter referred as XLPE) insulated and overall polyamide (hereafter' referred as PA) jacketed winding wires for submersible motors. 2 The wires covered in this standard are suitable for use where combination of ambient temperature and temperature rise due to load results in conductor temperature not exceeding 105”C under normal operation.		New Draft
IS 8783 (Part 4/Sec 3) : 1995		Winding wires for submersible motors - Specification: Part 4 specification for individual wires: Sec 3 polyester and polypropylene insulated winding wires	March, 2021	1 This standard (Part 4/sec 3) covers the requirments of high conductivity annealed soloid and stranded copper xconductor with polypropylene insulted winding wires for submersible motors. 2 The wires coverd in the standard are suitable for use where the combination of ambient tempersature in conductor teperature not exceeding 105 °C		New Draft

		(First Revision)				
IS 2069 : 1991		Drums for covered winding wires and strips for electrical purposes - Specification Second Revision	March, 2021	This standard specifies the dimensional requirements for drums for covered winding wires and strips for electrical purposes. It includes essential requirements for materials, construction and marking.		New Draft
IS 9778 : 1981		Guide for evaluation of thermal endurance of varnish bonded glass fibre covered rectangular copper conductors	March, 2021	1 The test method covered in this standard is intended primarily for comparing the thermal endurance of varnish bonded glass fibre lapped or braided rectangular copper conductors in air at atmospheric pressure. In due course similar standard to cover round conductors will be prepared. 2 Exposure of some types of varnish bonded glass fibre lapped or braided rectangular conductors to heat in gaseous or liquid environments in the absence of air may give thermal endurance values different from those obtained in air. This fact must be considered when interpreting the results obtained by heating in air in respect to applications where the wire will not be exposed to air in service. 3 The method described covers only the evaluation of thermal endurance by changes in electric strength. In due course, other test methods to evaluate the changes in other properties will be formulated.	This is already covered in IS 13778 (Part 6) : 2018 IEC60851-6 : 2012 (Active) Winding wires - Test methods: Part 6 thermal properties (Second Revision).	Withdraw

ITEM 5 WITHDRAWN IEC STANDARDS

The committee decided to reaffirm following standards although these IEC have been withdrawn as there is no other specifications covering these areas hence These ISs may be reaffirmed:

IS Number	IEC status	Title
IS 13730 (Part 0/Sec 5) : 2012 EC 60317-0-5	IEC 60317-0-5:2006 Withdrawn	Specifications for particular types of winding wires: Part 0 general requirements: Sec 5 glass - Fibre braided, resin or varnish impregnated, bare or enamelled rectangular copper wire (First Revision)
IS 13730 (Part 3) : 2012 IEC 60317-3	IEC 60317-3:2004+AMD1:2010 CSV Withdrawn	Specifications for particular types of winding wires: Part 3 polyester enamelled round copper wire, class 155 (First Revision)
IS 13730 (Part 4) : 2018 IEC 60317-4	IEC 60317-4:2015 Withdrawn	Specification for particular types of winding wires: Part 4 solderable polyurethane enamelled round copper wire, class 130, (Second Revision)
IS 13730 (Part 15) : 1994	IEC 60317-15:1990 Withdrawn	Particular types of winding wires: Part 15 polyesterimide enammelled round aluminium wire, class 180
IS 13730 (Part 16) : 1996 IEC 60317-16	IEC 60317-16:1990 withdrawn	Specifications for particular types of winding wires: Part 16 polyester enamelled rectangular copper wire class 155
IS 13730 (Part 26) : 1996 IEC 60317-26	IEC 60317-26:1990 Withdrawn	Specifications for particular types of winding wires: Part 26 polyamide - Imide enamelled round copper wire, class 200
IS 13730 (Part 27) : 2018 IEC 60317-27	IEC 60317-27:2013 Withdrawn IEC 60317-27-3:2019 /- AMD1	Specifications for Particular Types of Winding Wires Part 27 Paper Tape Covered Rectangular Copper Wire (First Revision)
IS 13730 (Part 34) : 2000 IEC 60317-34	IEC 60317-34:1997 withdrawn	Specifications for particular types of winding wires: Part 34 polyester enamelled round copper wire, class 130 L (First Revision)
IS 13730 (Part 39) : 2018 IEC 60317-39	IEC 60317-39:2015 withdrawn	Specifications for particular types of winding wires: Part 39 glass - Fibre braided resin or varnish - Impregnated, bare or enamelled rectangular copper wire, temperature index 180 (First Revision)
IS 13730 (Part 45) : 1999 IEC 60317-45	IEC 60317-45:1998 withdrawn	Specifications for particular types of winding wires: Part 45 polyester enamelled round copper wire, class 130

ITEM 6 STANDARDS TO REAFFIRMED AND FINALIZED

Following standards have been approved for reaffirmation:

IS No.	LATEST IEC	Title
IS 13730 (Part 0/Sec 1) : 2018 IEC 60317-0-1: 2013	IEC 60317-0-1:2013+AMD1:2019 CSV	Specifications for particular types of winding wires: Part 0 general requirements: Sec 1 enamelled round copper wire (Second Revision)

IS 13730 (Part 0/Sec 2) : 2018 IEC 60317-0-2 : 2013	IEC 60317-0-2:2020	Specifications for particular types of winding wires: Part 0 general requirements: Sec 2 enamelled rectangular copper wire (Second Revision)
IS 13730 (Part 0/Sec 3) : 2012 IEC 60317-0-3	IEC 60317-0-3:2008+AMD1:2013+AMD2:2019 CSV	Specifications for particular types of winding wires: Part 0 general requirements: Sec 3 enamelled round aluminium wire (First Revision)
IS 13730 (Part 0/Sec 4) : 2018 IEC 60317-0-4: 2015	IEC 60317-0-4:2020	Specification for particular types of winding wires: Part 0 general requirements: Sec 4 glass - Fibre wound resin or varnish impregnated, bare or enamelled rectangular copper wire (Second Revision)
IS 13730 (Part 0/Sec 6) : 2012 EC 60317-0-6	IEC 60317-0-6:2020	Specifications for particular types of winding wires: Part 0 general requirements: Sec 6 glass - Fibre wound resin or varnish impregnated, bare or enamelled round copper wire
IS 13730 (Part 1) : 1993	IEC 60317-1:2010+AMD1:2024	Particular types of winding wires: Part 1 Polyvinyl acetal enamelled round copper wire, class 105 (superseeding by IS 4800(Part 4):1968
IS 13730 (Part 2) : 2018 IEC 60317-2: 2012	IEC 60317-2:2019+AMD1:2024 CSV	Specification for particular types of winding wires: Part 2 solderable polyurethane enamelled round copper wire, class 130, with a bonding layer (Second Revision)
IS 13730 (Part 12) : 2012 IEC 60317-12 : 2010	IEC 60317-12:2020+AMD1:2024 CSV	Specifications for particular types of winding wires: Part 12 polyvinyl acetal enamelled round copper wire, class 120
IS 13730 (Part 20) : 2018 IEC 60317-20	IEC 60317-20:2013+AMD1:2019 CSV	Specifications for particular types of winding wires: Part 20 solderable polyurethane enamelled round copper wire, class 155 (Second Revision)
IS 13730 (Part 21) : 2017 IEC 60317-21:2013	IEC 60317-21:2013+AMD1:2019 CSV	Specifications for particular types of winding wires: Part 21 solderable polyurethane enamelled round copper wire overcoated with polyamide, class 155
IS 13730 (Part 23) : 2017 IEC 60317-23:2013	IEC 60317-23:2013+AMD1:2019 CSV	Specifications for particular types of winding wires: Part 23 solderable polyesterimide enamelled round copper wire, class 180
IS 13730 (Part 27) : 2018 IEC 60317-27	IEC 60317-27-3:2019+AMD1:2024 CSV	Specifications for Particular Types of Winding Wires Part 27 Paper Tape Covered Rectangular Copper Wire (First Revision)
IS 13730 (Part 28) : 2018 IEC 60317-28	IEC 60317-28:2013+AMD1:2024 CSV	Specifications for particular types of winding wires: Part 28 polyesterimide enamelled rectangular copper wire, class 180 (First Revision)
IS 13730 (Part 31) : 2018 IEC 60317-31	IEC 60317-31:2015	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)
IS 13730 (Part 32) : 2018 IEC 60317-32	IEC 60317-32:2015	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)
IS 13730 (Part 33) : 2018 IEC 60317-33	IEC 60317-33:2015	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)
IS 13730 (Part 35) : 2017 IEC 60317-35:2013	IEC 60317-35:2013+AMD1:2019+AMD2:2024 CSV	Specifications for particular types of winding wires: Part 35 solderable polyurethane enamelled round copper wire, class 155, with a bonding layer

IS 13730 (Part 36) : 2017 IEC 60317-36:2013	IEC 60317-36:2013+AMD1:2019+AMD2:2024 CSV	Specifications for particular types of winding wires: Part 36 solderable polyesterimide enamelled round copper wire, class 180, with a bonding layer
IS 13730 (Part 37) : 2017 IEC 60317-37:2013	IEC 60317-37:2013+AMD1:2024 CSV	Specifications for particular types of winding wires: Part 37 polyesterimide enamelled round copper wire, class 180, with a bonding layer
IS 13730 (Part 38) : 2018 IEC 60317-38	IEC 60317-38:2013+AMD1:2024 CSV	Specifications for particular types of winding wires: Part 38 polyester or polyesterimide overcoated with polyamide - Imide, enamelled round copper wire, class 200, with a bonding layer
IS 13730 (Part 43) : 2013 IEC 60317-43	IEC 60317-43:1997+AMD1:2010 CSV	Specification for particular types of winding wires: Part 43 aromatic polyimide tape wrapped round copper wire, class 240 (First Revision)
IS 13730 (Part 44) : 2013 IEC 60317-44	IEC 60317-44:1997+AMD1:2010 CSV	Specification for particular types of winding wires: Part 44 aromatic polyimide tape wrapped rectangular copper wire, class 240 (First Revision)
IS 13730 (Part 46) : 2017 IEC 60317-46:2013	IEC 60317-46:2013+AMD1:2024 CSV	Specifications for particular types of winding wires: Part 46 aromatic polyimide enamelled round copper wire, class 240
IS 13730 (Part 47) : 2017 IEC 60317-47:2013	IEC 60317-47:2013+AMD1:2024 CSV	Specifications for particular types of winding wires: Part 47 aromatic polyimide enamelled rectangular copper wire, class 240
IS 13730 (Part 48) : 2018 IEC 60317-48	IEC 60317-48:2012	Specifications for particular types of winding wires: Part 48 glass - Fibre wound resin or varnish impregnated, bare or enamelled round copper wire, temperature index 155 (First Revision)
IS 13730 (Part 49) : 2018 IEC 60317-49	IEC 60317-49:2012	Specifications for particular types of winding wires: Part 49 glass - Fibre wound, high temperature resin or varnish - Impregnated, bare or enamelled round copper wire, class 180 (First Revision)
IS 13730 (Part 50) : 2018 IEC 60317-50	IEC 60317-50:2012	Specifications for particular types of winding wires: Part 50 glass - Fibre wound, silicone resin or varnish impregnated, bare or enamelled round copper wire, class 200 (First Revision)
IS 13730 (Part 53) : 2018 IEC60317-53	IEC 60317-53:2014	Specifications for particular types of winding wires: Part 53 aromatic polyimide (Aramid) tape wrapped rectangular copper wire, temperature index 220 (First Revision)
IS 13778 (Part 2) : 2013 IEC 60851-2	IEC 60851-2:2009+AMD1:2015+AMD2:2019 CSV	Winding wires - Test methods: Part 2 determination of dimensions (First Revision)
IS 13778 (Part 3) : 2012 IEC 60851-3	IEC 60851-3:2023	Winding wires - Test methods: Part 3 mechanical properties (First Revision)
IS 13778 (Part 4) : 2018 IEC 60851-4	IEC 60851-4:2016	Winding wires - Test methods: Part 4 chemical properties (Second Revision)
IS 13778 (Part 5) : 2012 IEC 60851-5	IEC 60851-5:2008+AMD1:2011+AMD2:2019 CSV	Winding wires - Test methods: Part 5 electrical properties (First Revision)
IS 13778 (Part 6) : 2018 IEC60851-6	IEC 60851-6:2012	Winding wires - Test methods: Part 6 thermal properties (Second Revision)

IS 14841 (Part 4/Sec 1) : 2013 IEC 60264-2-1	IEC 60264-2-1:1989/AMD1:2003	Packaging of winding wires: Part 4 methods of test: Sec 1 delivery spools made from thermoplastic materials (First Revision)

ITEM 7 INTERNATIONAL ACTIVITIES

7.1 Membership in IEC/TC 55 and New Subjects for Harmonization

Mr M Choudhry to be removed from WG1 as the member is inactive.

7.2 Document up for voting.

Documents were asked to be circulated once again.

Reference, Title	Circulation Date	Closing Date
55/2045/CDV **IEC 60851-1/AMD1 ED3: Amendment 1 - Winding wires - Test methods - Part 1: General**	**2024-06-14**	**2024-09-06**
55/2045(F)/CDV **IEC 60851-1/AMD1 ED3: Amendment 1 - Winding wires - Test methods - Part 1: General**	**2024-06-21**	**2024-09-06**
55/2053/FDIS **IEC 60317-27-1/AMD1 ED1: Amendment 1 - Specifications for particular types of winding wires - Part 27-1: Paper tape covered round copper wire**	**2024-07-26**	**2024-09-06**

55/2053(F)/FDIS

IEC 60317-27-1/AMD1 ED1: Amendment 1 - Specifications for particular types of winding wires - Part 27-1: Paper tape covered round copper wire **2024-08-09** **2024-09-06**

ANNEXURE 1

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	Winding Wires Manufacturers' Association of India, Greater Noida	Shri Sudhir Agarwal	sudhir@gkwinding.com

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