(PREVIEW)

Indian Standard

SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES

PART 31 GLASS-FIBRE WOUND, POLYESTER OR POLYESTERIMIDE VARNISH-TREATED, BARE OR ENAMELLED RECTANGULAR COPPER WIRE.TEMPERATURE INDEX 180

1 scope

This International Standard specifies the requirements of glass-fibre wound, polyester or polyesterimide varnish-treated, bare or grade 2 enamelled rectangular copper winding wire, temperature index 180.

NOTE - For this type of wire, the heat shock test is inappropriate and therefore a heat shock temperature cannot be established. Consequently, a class based on the requirements for temperature index land heat shock temperature cannot be specified.

The enamelled wire shall be based on one of the following standards and shall be agreed between purchaser and supplier.

IEC 317-16 : 1990, Specifications *for particular types of winding wires - Part* 76: *Polyester enamelled rectangular copper wire, class 155.*

IEC 317-28 : 1990. *Specifications for particular types of winding wires - Part 28: Polyesterimide enamelled rectangular copper wire, class 180.*

IEC 317-29 : 1990, *Specifications for particular types of winding wires - Part 29: Polyester or polyestenmide overcoated with polyamide-imide enamelled rectangular copper wire, class 200.*

IEC 317-30 : 1990, *Specifications for particular types of winding wires - Part 30: Polyimide enamelled rectangular copper wire, class 220.*

When an enamelled wire is used, it must have a minimum class of 155.

The temperature index of the glass-fibre wound varnish-treated wire is dependent upon the type of varnish used. The varnish applied to the glass-fibre is based upon polyester or polyesterimide resin and shall have a minimum temperature index of 180. The method of test is to be agreed between purchaser and supplier. The maximum service temperature shall be determined by experience.

The glass-fibre covering may be:

a) a single layer of glass-fibre;
b) a double layer of glass-fibre, with one layer applied in the direction opposite to that of the other.

The range of nominal conductor dimensions covered by this standard is:

- width:	min.	2,0 mm	max.	16,0 mm;
- thickness:	min.	0,80 mm	max.	5,60 mm.

The specified combinations of width and thickness as well as the specified width/thickness ratio are given in IEC 317-0-4.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid international standards.

IEC 317-0-4 : 1990, *Specifications for particular types of winding wires - Part 0: General requirements - Section 4: Glass-fibre wound bare* or enamelled rectangular copper wire.

IEC 317-l6 : 1990, *Specifications for particular types of winding wires - Part 16: Polyester enamelled rectangular copper wire, class 155.*

IEC 317-28 : 1990, *Specifications* for *particular types of winding wires - Part 28: Polyesterimide enamelled rectangular copper wire, class 180.*

IEC 317-29 : 1990, *Specifications for particular types of winding wires - Part 29: Polyester or polyesterimide overcoated with polyamide-imide enameted rectangular copper wire, class 200.*

IEC 317-30 : 1990, *Specifications for particular types of winding wires - Part 30: Polyimide enamelled* rectangular *copper wire, class 220.*