

(PREVIEW)

# ***Indian Standard***

## **SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES**

### **PART 49 GLASS-FIBRE WOUND RESIN OR VARNISH-IMPREGNATED, BARE OR ENAMELLED ROUND COPPER WIRE, TEMPERATURE INDEX 180**

#### **1 Scope**

This part of IEC 60317 specifies the requirements of glass-fibre wound resin or varnish impregnated, bare, grade 1 or grade 2 enamelled round copper winding wire, temperature index 180. The impregnating agent can be, for instance, polyester or polyesterimide resin based.

**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 and heat shock temperature cannot be specified.

The enamelled wire should be based on one of the following standards and should be agreed between purchaser and supplier: IEC 60317-8; IEC 60317-13 or IEC 60317-46.

The temperature index of the wire is dependent upon the type of impregnating agent used. The impregnating agent applied to the glass fibre should have a minimum temperature index of 180.

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 layer.

The range of nominal conductor diameters covered by this standard is

- for bare covered wires (grade G2): 0,500 mm up to and including 5,000 mm;
- for grade 1 enamelled wires (grades 1G1 and 1G2): 0,500 mm up to and including 1,600mm;
- for grade 2 enamelled wires (grades 2G1 and 2G2): 0,500 mm up to and including 5,000mm.

The nominal conductor diameters are specified in clause 4 of the future IEC 60317-0-6.

## 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 60317. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 60317 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60317-8 : 1990, *Specifications for particular types of winding wires - Part 8: Polyesterimide enamelled round copper wire, class 180*

IEC 60317-13 : 1990, *Specifications for particular types of winding wires – Part 13: Polyester or polyesterimide overcoated with polyamide-imide, enamelled round copper wire, class 200*

IEC 60317-46 : 1997, *Specifications for particular types of winding wires - Part 46: Aromatic polyimide enamelled round copper wire, class 240*