

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

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**Specifications for particular types of winding wires –  
Part 0-4: General requirements – Glass-fibre wound, resin or varnish  
impregnated, bare or enamelled rectangular copper wire**

**Spécifications pour types particuliers de fils de bobinage –  
Partie 0-4: Exigences générales – Fil de section rectangulaire en cuivre nu ou  
émaillé, guipé de fibres de verre imprégnées de vernis ou de résine**



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COMMISSION

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# INTERNATIONAL ELECTROTECHNICAL COMMISSION

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## SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

### **Part 0-4: General requirements – Glass-fibre wound, resin or varnish impregnated, bare or enamelled rectangular copper wire**

#### FOREWORD

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International Standard IEC 60317-0-4 has been prepared by IEC technical committee 55: Winding wires.

This third edition cancels and replaces the second edition published in 1997, Amendment 1:1999 and Amendment 2:2005. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) addition of dimensional requirements for grade 1 enamelled wire in Table 4;
- b) addition of dielectric breakdown requirements for grade 1 enamelled wire in Table 7.

The text of this standard is based on the following documents:

FDIS	Report on voting
55/1550/FDIS	55/1565/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all the parts in the IEC 60317 series, published under the general title *Specifications for particular types of winding wires*, can be found on the IEC website.

This standard is to be read in conjunction with the IEC 60851 series. The clause numbers used in this standard are identical with the respective test numbers of the IEC 60851 series.

In case of inconsistencies between IEC 60851 and this standard, the latter prevails.

The numbering of clauses in this standard is not continuous from Clauses 21 through 30 in order to reserve space for possible future wire requirements prior to those for wire packaging.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

## INTRODUCTION

This part of IEC 60317 is one of a series which deals with insulated wires used for windings in electrical equipment. The series has three groups describing:

- 1) Winding wires – Test methods (IEC 60851);
- 2) Specifications for particular types of winding wires (IEC 60317);
- 3) Packaging of winding wires (IEC 60264).



## SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

### Part 0-4: General requirements – Glass-fibre wound, resin or varnish impregnated, bare or enamelled rectangular copper wire

#### 1 Scope

This part of IEC 60317 specifies general requirements of glass-fibre wound, resin or varnish impregnated, bare or enamelled rectangular copper wire.

The range of nominal conductor dimensions is given in the relevant specification sheet.

#### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60851 (all parts), *Winding wires – Test methods*

#### 3 Terms, definitions and general notes on tests and appearance

##### 3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

##### 3.1.1

##### **coating**

material which is deposited on a conductor or wire by a suitable means and then dried and/or cured

##### 3.1.2

##### **conductor**

bare metal after removal of the insulation

##### 3.1.3

##### **covering**

material which is wound, wrapped or braided around a bare or insulated conductor

##### 3.1.4

##### **crack**

opening in the insulation which exposes the conductor to view at the stated magnification

##### 3.1.5

##### **enamelled wire**

wire coated with an insulation of cured resin

##### 3.1.6

##### **grade**

range of thickness of the insulation of a wire