

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

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**Specifications for particular types of winding wires –  
Part 70-1: Polyester glass-fibre wound unvarnished and fused, bare or  
enamelled round copper wire, temperature index 155**

**Spécifications pour types particuliers de fils de bobinage –  
Partie 70-1: Fil de section circulaire en cuivre nu ou émaillé, guipé de fibres  
de verre polyester fondues non vernies, d'indice de température 155**



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## CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	6
2 Normative references .....	6
3 Terms, definitions, general notes and appearance.....	6
3.1 Terms and definitions.....	6
3.2 General notes .....	6
3.2.1 Methods of test.....	6
3.2.2 Winding wire.....	6
3.3 Appearance .....	7
4 Dimensions.....	7
5 Electrical resistance .....	7
6 Elongation .....	7
7 Springiness .....	7
8 Flexibility and adherence.....	7
9 Heat shock .....	7
10 Cut-through .....	7
11 Resistance to abrasion .....	8
12 Resistance to solvents.....	8
13 Breakdown voltage .....	8
14 Continuity of insulation .....	8
15 Temperature index .....	8
16 Resistance to refrigerants.....	8
17 Solderability .....	8
18 Heat or solvent bonding.....	8
19 Dielectric dissipation factor.....	8
20 Resistance to hydrolysis and to transformer oil.....	8
21 Loss of mass .....	8
23 Pin hole test .....	8
30 Packaging .....	9
Bibliography.....	10

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –****Part 70-1: Polyester glass-fibre wound unvarnished and fused,  
bare or enamelled round copper wire, temperature index 155**

## FOREWORD

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International Standard IEC 60317-70-1 has been prepared by IEC technical committee 55: Winding wires.

IEC 60317-70-1 and IEC 60317-70-2 cancel and replace IEC 60317-70 published in 2017. This document constitutes a technical revision.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
55/1845/FDIS	55/1861/RVD

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

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

This International Standard is to be used in conjunction with IEC 60317-0-10:2017.

A list of all 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.

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 document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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

## INTRODUCTION

This part of IEC 60317 forms an element of a series of standards which deals with insulated wires used for windings in electrical equipment. It is composed of the following series:

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

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

### **Part 70-1: Polyester glass-fibre wound unvarnished and fused, bare or enamelled round copper wire, temperature index 155**

#### **1 Scope**

This part of IEC 60317 specifies the requirements of polyester glass-fibre wound unvarnished and fused bare, grade 1 or grade 2 enamelled round copper winding wires, temperature index 155.

The nominal conductor diameters are specified in Clause 4 of IEC 60317-0-10:2017.

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.

#### **2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60317-0-10:2017, *Specifications for particular types of winding wires – Part 0-10: General requirements – Polyester glass-fibre wound fused, unvarnished, or resin or varnish impregnated, bare or enamelled round copper wire*

#### **3 Terms, definitions, general notes and appearance**

##### **3.1 Terms and definitions**

For the purposes of this document, the terms and definitions given in IEC 60317-0-10:2017 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

##### **3.2 General notes**

###### **3.2.1 Methods of test**

Subclause 3.2.1 of IEC 60317-0-10:2017 applies. In case of inconsistencies between IEC 60317-0-10 and this document, the latter shall prevail.

###### **3.2.2 Winding wire**

The fibre covering shall consist of a combination of polyester and glass fibres. The glass fibres shall be electrical-grade continuous-filament glass yarn. The polyester fibre shall be a high-grade yarn resulting from the linear polymerization of ethylene glycol and terephthalic acid. The maximum content by weight of polyester fibre in the yarn shall not exceed 50 %.