



**NSAI**  
Standards

Irish Standard  
I.S. EN IEC 60317-70-2:2020

Specifications for particular types of winding wires - Part 70-2: Polyester glass-fibre wound resin/varnish impregnated, bare or enamelled round copper wire, temperature index 155

**I.S. EN IEC 60317-70-2:2020**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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EN IEC 60317-70-2:2020

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## National Foreword

I.S. EN IEC 60317-70-2:2020 is the adopted Irish version of the European Document EN IEC 60317-70-2:2020, Specifications for particular types of winding wires - Part 70-2: Polyester glass-fibre wound resin/varnish impregnated, bare or enamelled round copper wire, temperature index 155

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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*In line with international standards practice the decimal point is shown as a comma (,) throughout this document.*

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EUROPEAN STANDARD

**EN IEC 60317-70-2**

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2020

ICS 29.060.10

Supersedes EN 60317-70:2017 (partially) and all of its amendments and corrigenda (if any)

English Version

**Specifications for particular types of winding wires - Part 70-2:  
Polyester glass-fibre wound resin/varnish impregnated, bare or  
enamelled round copper wire, temperature index 155  
(IEC 60317-70-2:2020)**

Spécifications pour types particuliers de fils de bobinage -  
Partie 70-2: Fil de section circulaire en cuivre nu ou émaillé,  
guipé de fibres de verre polyester imprégnées de vernis ou  
de résine, d'indice de température 155  
(IEC 60317-70-2:2020)

Technische Lieferbedingungen für bestimmte Typen von  
Wickeldrähten - Teil 70-2: Runddrähte aus Kupfer, blank  
oder lackisoliert, mit Polyesterfasern umspunnen,  
imprägniert mit Harz oder Lack, Temperaturindex 155  
(IEC 60317-70-2:2020)

This European Standard was approved by CENELEC on 2020-07-27. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

## **EN IEC 60317-70-2:2020 (E)**

### **European foreword**

The text of document 55/1846/FDIS, future edition 1 of IEC 60317-70-2, prepared by IEC/TC 55 "Winding wires" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60317-70-2:2020.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2021-04-27
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-07-27

This document supersedes (partially) EN 60317-70:2017 and all of its amendments and corrigenda (if any).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

### **Endorsement notice**

The text of the International Standard IEC 60317-70-2:2020 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60264 (series)	NOTE	Harmonized as EN 60264 (series)
IEC 60317 (series)	NOTE	Harmonized as EN 60317 (series)
IEC 60851 (series)	NOTE	Harmonized as EN 60851 (series)

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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	EN 60317-0-10	2017

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**IEC 60317-70-2**

Edition 1.0 2020-06

# **INTERNATIONAL STANDARD**

# **NORME INTERNATIONALE**

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**Specifications for particular types of winding wires –  
Part 70-2: Polyester glass-fibre wound resin/varnish impregnated, bare or  
enamelled round copper wire, temperature index 155**

**Spécifications pour types particuliers de fils de bobinage –  
Partie 70-2: Fil de section circulaire en cuivre nu ou émaillé, guipé de fibres de  
verre polyester imprégnées de vernis ou de résine, d'indice de température 155**





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**IEC 60317-70-2**

Edition 1.0 2020-06

# **INTERNATIONAL STANDARD**

# **NORME INTERNATIONALE**

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**Specifications for particular types of winding wires –  
Part 70-2: Polyester glass-fibre wound resin/varnish impregnated, bare or  
enamelled round copper wire, temperature index 155**

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verre polyester imprégnées de vernis ou de résine, d'indice de température 155**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –****Part 70-2: Polyester glass-fibre wound resin/varnish impregnated,  
bare or enamelled round copper wire, temperature index 155**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60317-70-2 has been prepared by IEC technical committee 55: Winding wires.

IEC 60317-70-2 and IEC 60317-70-1 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
55/1846/FDIS	55/1862/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 70-2: Polyester glass-fibre wound resin/varnish impregnated, bare or enamelled round copper wire, temperature index 155**

#### **1 Scope**

This part of IEC 60317 specifies the requirements of polyester glass-fibre wound resin/varnish impregnated bare, grade 1 or grade 2 enamelled round copper winding wires, temperature index 155. The impregnating agent can be, for instance, epoxy, polyester, or polyesterimide resin based.

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.



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