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Standards

Irish Standard
I.S. EN 60317-51:2014

Specifications for particular types of winding wires - Part 51: Solderable polyurethane enamelled round copper wire, class 180

I.S. EN 60317-51:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

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EUROPEAN STANDARD

EN 60317-51

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2014

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Supersedes EN 60317-51:2001

English Version

**Specifications for particular types of winding wires - Part 51:
Solderable polyurethane enamelled round copper wire, class
180
(IEC 60317-51:2014)**

Spécifications pour types particuliers de fils de bobinage -
Partie 51: Fil brasable de section circulaire en cuivre
émaillé avec polyuréthane, classe 180
(CEI 60317-51:2014)

To be completed
(IEC 60317-51:2014)

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Foreword

The text of document 55/1394/CDV, future edition 2 of IEC 60317-51, prepared by IEC/TC 55 "Winding wires" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60317-51:2014.

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) 2014-12-19
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2017-03-19

This document supersedes EN 60317-51:2001.

EN 60317-51:2014 includes the following significant technical changes with respect to EN 60317-51:2001:

- new 3.2.2 containing general notes on winding wire, formerly a part of the scope;
- new 3.3 containing requirements for appearance;
- revision to references to EN 60317-0-1:2014 to clarify that their application is normative;
- New Clause 23, Pin hole test.

This standard is to be read in conjunction with EN 60317-0-1:2014.

The numbering of clauses in this standard is not continuous from Clauses 20 and 30 in order to reserve space for possible future wire requirements prior to those for wire packaging.

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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 (not modified).
IEC 60317 Series	NOTE	Harmonized as EN 60317 Series (not modified).
IEC 60851 Series	NOTE	Harmonized as EN 60851 Series (not modified).

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60317-0-1	2013	Specifications for particular types of winding wires - Part 0-1: General requirements - Enamelled round copper wire	EN 60317-0-1	2014

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IEC 60317-51

Edition 2.0 2014-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Specifications for particular types of winding wires –
Part 51: Solderable polyurethane enamelled round copper wire, class 180**

**Spécifications pour types particuliers de fils de bobinage –
Partie 51: Fil brasable de section circulaire en cuivre émaillé avec polyuréthane,
classe 180**





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IEC 60317-51

Edition 2.0 2014-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Specifications for particular types of winding wires –
Part 51: Solderable polyurethane enamelled round copper wire, class 180**

**Spécifications pour types particuliers de fils de bobinage –
Partie 51: Fil brasable de section circulaire en cuivre émaillé avec polyuréthane,
classe 180**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SPECIFICATIONS FOR PARTICULAR TYPES
OF WINDING WIRES –****Part 51: Solderable polyurethane enamelled round
copper wire, class 180**

FOREWORD

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International Standard IEC 60317-51 has been prepared by IEC technical committee 55: Winding wires.

This second edition cancels and replaces the first edition published in 2001. This edition constitutes a technical revision.

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

- new 3.2.2 containing general notes on winding wire, formerly a part of the scope;
- new 3.3 containing requirements for appearance;
- revision to references to IEC 60317-0-1:2013 to clarify that their application is normative;
- New Clause 23, Pin hole test.

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

CDV	Report on voting
55/1394/CDV	55/1456/RVC

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.

This International standard is to be read in conjunction with the IEC 60317-0-1:2013.

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 20 and 30 in order to reserve space for possible future wire requirements prior to those for wire packaging.

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 51: Solderable polyurethane enamelled round copper wire, class 180

1 Scope

This part of IEC 60317 specifies the requirements of solderable enamelled round copper winding wire of class 180 with a sole coating based on polyurethane resin, which may be modified providing it retains the chemical identity of the original resin and meets all specified wire requirements.

NOTE A modified resin is a resin that has undergone a chemical change, or contains one or more additives to enhance certain performance or application characteristics.

The range of nominal conductor diameters covered by this standard is as follows:

- Grade 1: 0,018 mm up to and including 1,000 mm;
- Grade 2: 0,020 mm up to and including 1,000 mm.

The nominal conductor diameters are specified in Clause 4 of IEC 60317-0-1:2013.

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 60317-0-1:2013, *Specifications for particular types of winding wires – Part 0-1: General requirements – 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 3.1 of IEC 60317-0-1:2013 apply.

3.2 General notes

3.2.1 Methods of test

In case of inconsistencies between IEC 60317-0-1 and this standard, the latter shall prevail.

3.2.2 Winding wire

Class 180 is a thermal class that requires a minimum temperature index of 180 and a heat shock temperature of at least 200 °C.

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