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IEC 60317-37

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CONSOLIDATED VERSION

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**Specifications for particular types of winding wires –
Part 37: Polyesterimide enamelled round copper wire, class 180, with a bonding
layer**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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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.....	7
3.2.1 Methods of test.....	7
3.2.2 Winding wire.....	7
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 (nominal conductor diameters from 0,250 mm up to and including 1,600 mm).....	8
12 Resistance to solvents.....	8
13 Breakdown voltage.....	8
14 Continuity of insulation.....	8
15 Temperature index.....	9
16 Resistance to refrigerants.....	9
17 Solderability.....	9
18 Heat or solvent bonding.....	9
18.1 Heat bonding.....	9
18.1.1 Heat bonding strength of a helical coil.....	9
18.1.2 Bond strength on a twisted coil.....	10
18.2 Solvent bonding.....	11
19 Dielectric dissipation factor.....	11
20 Resistance to transformer oil.....	11
21 Loss of mass.....	11
23 Pin hole test.....	11
30 Packaging.....	11
Bibliography.....	12
Table 1 – Resistance to abrasion.....	8
Table 2 – Loads.....	10

INTERNATIONAL ELECTROTECHNICAL COMMISSION

SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

Part 37: Polyesterimide enamelled round copper wire, class 180, with a bonding layer

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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- 9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at <https://patents.iec.ch>. IEC shall not be held responsible for identifying any or all such patent rights.

This consolidated version of the official IEC Standard and its amendment has been prepared for user convenience.

IEC 60317-37 edition 2.1 contains the second edition (2013-10) [documents 55/1418/FDIS and 55/1439/RVD] and its amendment 1 (2024-06) [documents 55/1991/CDV and 55/2027/RVC].

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendment 1. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.

International Standard IEC 60317-37 has been prepared by IEC technical committee 55: Winding wires.

This second edition cancels and replaces the first edition published in 1992, Amendment 1:1997 and Amendment 2:1999. 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;
- revision to references to IEC 60317-0-1:2013 to clarify that their application is normative;
- new Clause 23, Pin hole test.

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

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.

This International Standard is to be used in conjunction with IEC 60317-0-1:2013 and its Amendment 1:2019.

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.

The committee has decided that the contents of this document and its amendment will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
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- revised.

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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 37: Polyesterimide enamelled round copper wire, class 180, with a bonding layer

1 Scope

This part of IEC 60317 specifies the requirements of enamelled round copper winding wire of class 180 with a dual coating. The underlying coating is based on polyesterimide resin, which may be modified providing it retains the chemical identity of the original resin and meets all specified wire requirements. The superimposed coating is a bonding layer based on a thermoplastic resin.

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 part is:

- Grade 1B: 0,020 mm up to and including 1,600 mm;
- Grade 2B: 0,020 mm up to and including 1,600 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.~~ 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 60317-0-11:2013, *Specifications for particular types of winding wires – Part 0-1: General requirements – Enamelled round copper wire.*
IEC 60317-0-1:2013/AMD1:2019

¹ There exists a consolidated edition 4.1:2021 that includes IEC 60317-0-1:2013 and its Amendment 1:2019.

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.....	7
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 (nominal conductor diameters from 0,250 mm up to and including 1,600 mm)	7
12 Resistance to solvents.....	8
13 Breakdown voltage	8
14 Continuity of insulation	8
15 Temperature index	8
16 Resistance to refrigerants.....	9
17 Solderability	9
18 Heat or solvent bonding.....	9
18.1 Heat bonding.....	9
18.1.1 Heat bonding strength of a helical coil	9
18.1.2 Bond strength on a twisted coil	10
18.2 Solvent bonding	11
19 Dielectric dissipation factor.....	11
20 Resistance to transformer oil.....	11
21 Loss of mass	11
23 Pin hole test	11
30 Packaging	11
Bibliography.....	12
Table 1 – Resistance to abrasion.....	8
Table 2 – Loads.....	10

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