



BSI Standards Publication

Specifications for particular types of winding wires

Part 52: Aromatic polyamide (aramid)
tape wrapped round copper wire,
temperature index 220

National foreword

This British Standard is the UK implementation of EN 60317-52:2014. It is identical to IEC 60317-52:2014. It supersedes BS EN 60317-52:1999 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GEL/55, Winding wires.

A list of organizations represented on this committee can be obtained on request to its secretary.

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EN 60317-52

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Supersedes EN 60317-52:1999

English Version

Specifications for particular types of winding wires - Part 52:
Aromatic polyamide (aramid) tape wrapped round copper wire,
temperature index 220
(IEC 60317-52:2014)

Spécifications pour types particuliers de fils de bobinage -
Partie 52: Fil de section circulaire en cuivre enveloppé avec
un ruban polyamide aromatique (aramide), d'indice de
température 220
(CEI 60317-52:2014)

Technische Lieferbedingungen für bestimmte Typen von
Wickeldrähten - Teil 52: Runddrähte aus Kupfer, umwickelt
mit Band aus aromatischen Polyamiden, Temperaturindex
220
(IEC 60317-52:2014)

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

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Foreword

The text of document 55/1395/CDV, future edition 2 of IEC 60317-52, prepared by IEC/TC 55 "Winding wires" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60317-52:2014.

The following dates are fixed:

- latest date by which the document has to be (dop) 2014-12-21
implemented at national level by
publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2017-03-21
standards conflicting with the
document have to be withdrawn

This document supersedes EN 60317-52:1999.

EN 60317-52:2014 includes the following significant technical changes with respect to EN 60317-52:1999:

- new 3.2.2 containing general notes on winding wire, formerly a part of the scope;
- new 3.3, containing requirements for appearance;
- modification to Clause 15 to delete the note on revisions to IEC 60172;
- new Clause 23, Pin hole test.

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.

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

Endorsement notice

The text of the International Standard IEC 60317-52:2014 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 (not modified).
IEC 60317 Series	NOTE	Harmonized as EN 60317 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>
ISO 3	1973	Preferred numbers - Series of preferred numbers	-	-
IEC 60172		Test procedure for the determination of the temperature index of enamelled winding wires	EN 60172	
IEC 60819-3-3	2011	Non-cellulosic papers for electrical purposes - Part 3: Specifications for individual materials - Sheet 3: Unfilled aramid (aromatic polyamide) papers	EN 60819-3-3	2011
IEC 60851	(Series)	Winding wires - Test methods	EN 60851-6	(Series)

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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 52: Aromatic polyamide (aramid) tape wrapped round copper wire, temperature index 220

1 Scope

This part of IEC 60317 specifies requirements for tape wrapped round copper winding wire of temperature index 220. The insulation consists of one or more wrappings of aromatic polyamide (aramid) tape of various thicknesses.

NOTE The heat shock test is inappropriate for this type of wire. 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.

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

- 1,600 mm up to and including 5,000 mm;
- the nominal conductor diameters are given in Table 1.

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 60172, *Test procedure for the determination of the temperature index of enamelled winding wires*

IEC 60819-3-3:2011, *Non-cellulosic papers for electrical purposes – Part 3: Specifications for individual materials – Sheet 3: Unfilled aramid (aromatic polyamide) papers*

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

ISO 3:1973, *Preferred numbers – Series of preferred numbers*

3 Terms, definitions, general notes and appearance

3.1 Terms and definitions

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

3.1.1

class

thermal performance of a wire expressed by the temperature index and the heat shock temperature

3.1.2

conductor

bare metal after removal of the insulation