



SLOVENSKI STANDARD
oSIST prEN 60317-74:2017
01-september-2017

Specifikacije za posebne tipe navitij - 74. del: S poliesterimidom emajlirana aluminijasta žica s pravokotnim prerezom, razred 180

Specifications for particular types of winding wires - Part 74: Polyesterimide enamelled rectangular aluminium wire, class 180

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TITLE:

Specifications for particular types of winding wires - Part 74: Polyesterimide enamelled rectangular aluminium wire, class 180

NOTE FROM TC/SC OFFICERS:

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SPECIFICATIONS FOR PARTICULAR TYPES
OF WINDING WIRES –**
Part 74: Polyesterimide enamelled rectangular aluminium wire, class 180**FOREWORD**

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International Standard IEC 60317-74 has been prepared by IEC technical committee 55: Winding wires.

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

FDIS	Report on voting
XX/XX/FDIS	XX/XX/RVD

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.

90 The committee has decided that the contents of this publication will remain unchanged until
91 the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data
92 related to the specific publication. At this date, the publication will be

- 93 • reconfirmed,
- 94 • withdrawn,
- 95 • replaced by a revised edition, or
- 96 • amended.

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98 The National Committees are requested to note that for this publication the stability date
99 is 2021.

100 THIS TEXT IS INCLUDED FOR THE INFORMATION OF THE NATIONAL COMMITTEES AND WILL BE DELETED
101 AT THE PUBLICATION STAGE.

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INTRODUCTION

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105 This part of IEC 60317 forms an element of a series of standards which deals with insulated
106 wires used for windings in electrical equipment. The series has three groups describing:

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

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SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

Part 74: Polyesterimide enamelled rectangular aluminium wire, class 180

1 Scope

This part of IEC 60317 specifies the requirements of enamelled rectangular aluminium winding wire of class 180 with a sole coating based on polyesterimide 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 dimensions covered by this standard is:

– width:	min. 2,0 mm	max. 16,0 mm;
– thickness:	min. 0,80 mm	max. 5,60 mm.

Wires of grade 1 and grade 2 are included in this specification and apply to the complete range of conductors.

The specified combinations of width and thickness as well as the specified width/thickness ratio are given in IEC 60317-0-9:2015.

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 60317-0-9:2015, *Specifications for particular types of winding wires – Part 0-9: General requirements – Enamelled rectangular aluminium wire.*

3 Terms, definitions, general notes and appearance

3.1 Terms and definitions

Subclause 3.1 of IEC 60317-0-9:2015 applies

3.2 General notes

3.2.1 Methods of test

In case of inconsistencies between IEC 60317-0-9 and this standard, IEC 60317-74 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.

The temperature in degrees Celsius corresponding to the temperature index is not necessarily that at which it is recommended that the wire be operated and this will depend on many factors, including the type of equipment involved.

3.3 Appearance

Clause 3.3 of IEC 60317-0-9:2015 applies.

162 **4 Dimensions**

163 Clause 4 of IEC 60317-0-9:2015 applies.

164 **5 Electrical resistance**

165 Clause 5 of IEC 60317-0-9:2015 applies.

166 **6 Elongation**

167 Clause 6 of IEC 60317-0-9:2015 applies.

168 **7 Springiness**

169 Test appropriate but no requirements specified.

170 **8 Flexibility and adherence**

171 Clause 8 of IEC 60317-0-9:2015 applies.

172 **9 Heat shock**

173 Clause 9 of IEC 60317-0-9:2015 applies. The minimum heat shock temperature shall be
174 200°C.

175 **10 Cut-through**

176 Test inappropriate.

177 **11 Resistance to abrasion**

178 Test inappropriate.

179 **12 Resistance to solvents**

180 Clause 12 of IEC 60317-0-9:2015 applies.

181 **13 Breakdown voltage**

182 Clause 13 of IEC 60317-0-9:2015 applies. The elevated temperature shall be 180°C.

183 **14 Continuity of insulation**

184 Test appropriate.

185 **15 Temperature index**

186 Clause 15 of IEC 60317-0-9:2015 applies. The minimum temperature index shall be 180°C.

187 **16 Resistance to refrigerants**

188 Test inappropriate.

189 **17 Solderability**

190 Test inappropriate.

191 **18 Heat or solvent bonding**

192 Test inappropriate.

193 **19 Dielectric dissipation factor**

194 Test under consideration.

195 **20 Resistance to transformer oil**

196 Test under consideration.

197 **21 Loss of mass**

198 Test inappropriate.

199 **23 Pin hole test**

200 Test inappropriate.

201 **30 Packaging**

202 Clause 30 of IEC 60317-0-9:2015 applies.

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