

# SLOVENSKI STANDARD

## SIST EN IEC 60317-18:2020

01-oktober-2020

Nadomešča:

SIST EN 60317-18:2005

SIST EN 60317-18:2005/A1:2010

---

**Specifikacije za posebne vrste navijalnih žic - 18. del: S polivinil acetalom emajlirana pravokotna bakrena žica, razred 120 (IEC 60317-18:2020)**

Specifications for particular types of winding wires - Part 18: Polyvinyl acetal enamelled rectangular copper wire, class 120 (IEC 60317-18:2020)

**iTeh STANDARD PREVIEW**

Technische Lieferbedingungen für bestimmte Typen von Wickeldrähten - Teil 18: Flachdrähte aus Kupfer, lackisoliert mit Polyvinylacetal, Klasse 120 (IEC 60317-18:2020)

Spécifications pour types particuliers de fils de bobinage - Partie 18: Fil de section rectangulaire en cuivre émaillé avec acétal de polyvinyle, classe 120 (IEC 60317-18:2020)

**Ta slovenski standard je istoveten z: EN IEC 60317-18:2020**

---

**ICS:**

29.060.10	Žice	Wires
77.150.30	Bakreni izdelki	Copper products

**SIST EN IEC 60317-18:2020 en**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN IEC 60317-18:2020](https://standards.iteh.ai/catalog/standards/sist/f7dc6cc3-41fd-4faa-b402-e0845c74f89d/sist-en-iec-60317-18-2020)

<https://standards.iteh.ai/catalog/standards/sist/f7dc6cc3-41fd-4faa-b402-e0845c74f89d/sist-en-iec-60317-18-2020>

EUROPEAN STANDARD

**EN IEC 60317-18**

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2020

ICS 29.060.10

Supersedes EN 60317-18:2004 and all of its  
amendments and corrigenda (if any)

English Version

Specifications for particular types of winding wires - Part 18:  
Polyvinyl acetal enamelled rectangular copper wire, class 120  
(IEC 60317-18:2020)

Spécifications pour types particuliers de fils de bobinage -  
Partie 18: Fil de section rectangulaire en cuivre émaillé  
avec acétal de polyvinyle, classe 120  
(IEC 60317-18:2020)

Technische Lieferbedingungen für bestimmte Typen von  
Wickeldrähten - Teil 18: Flachdrähte aus Kupfer, lackisoliert  
mit Polyvinylacetal, Klasse 120  
(IEC 60317-18:2020)

This European Standard was approved by CENELEC on 2020-07-10. 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.

[SIST EN IEC 60317-18:2020](https://standards.iteh.ai/catalog/standards/sist/f7dc6cc3-41fd-4faa-b402-30c974a20000/iec-60317-18-2020)

[https://standards.iteh.ai/catalog/standards/sist/f7dc6cc3-41fd-4faa-b402-](https://standards.iteh.ai/catalog/standards/sist/f7dc6cc3-41fd-4faa-b402-30c974a20000/iec-60317-18-2020)

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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 60317-18:2020 (E)****European foreword**

The text of document 55/1843/FDIS, future edition 4 of IEC 60317-18, prepared by IEC/TC 55 "Winding wires" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60317-18:2020.

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) 2021-04-10
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-07-10

This document supersedes EN 60317-18:2004 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.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

### Endorsement notice

[SIST EN IEC 60317-18:2020](https://standards.iteh.ai/catalog/standards/sist/f7dc6cc3-41fd-4faa-b402-e0845c74f89d/sist-en-iec-60317-18-2020)

[https://standards.iteh.ai/catalog/standards/sist/f7dc6cc3-41fd-4faa-b402-](https://standards.iteh.ai/catalog/standards/sist/f7dc6cc3-41fd-4faa-b402-e0845c74f89d/sist-en-iec-60317-18-2020)

[e0845c74f89d/sist-en-iec-60317-18-2020](https://standards.iteh.ai/catalog/standards/sist/f7dc6cc3-41fd-4faa-b402-e0845c74f89d/sist-en-iec-60317-18-2020)

The text of the International Standard IEC 60317-18:2020 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)
IEC 60851-4:2016	NOTE	Harmonized as EN 60851-4:2016 (not modified)

## 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 60317-0-2	2020	Specifications for particular types of winding wires - Part 0-2: General requirements - Enamelled rectangular copper wire	-	-

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN IEC 60317-18:2020  
<https://standards.iteh.ai/catalog/standards/sist/f7dc6cc3-41fd-4faa-b402-e0845c74f89d/sist-en-iec-60317-18-2020>

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN IEC 60317-18:2020](#)

<https://standards.iteh.ai/catalog/standards/sist/f7dc6cc3-41fd-4faa-b402-e0845c74f89d/sist-en-iec-60317-18-2020>



IEC 60317-18

Edition 4.0 2020-06

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

Specifications for particular types of winding wires –  
Part 18: Polyvinyl acetal enamelled rectangular copper wire, class 120  
(standards.iteh.ai)

Spécifications pour types particuliers de fils de bobinage –  
Partie 18: Fil de section rectangulaire en cuivre émaillé avec acétal  
de polyvinyle, classe 120

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

ICS 29.060.10

ISBN 978-2-8322-8393-6

**Warning! Make sure that you obtained this publication from an authorized distributor.**  
**Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

## 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
8.1 Mandrel winding test .....	7
8.2 Adherence test .....	8
9 Heat shock .....	8
10 Cut-through .....	8
11 Resistance to abrasion .....	8
12 Resistance to solvents .....	8
13 Breakdown voltage .....	8
14 Continuity of insulation .....	8
15 Temperature index .....	8
16 Resistance to refrigerants .....	8
17 Solderability .....	8
18 Heat or solvent bonding .....	8
19 Dielectric dissipation factor .....	9
20 Resistance to transformer oil .....	9
21 Loss of mass .....	9
23 Pin hole test .....	9
30 Packaging .....	9
Bibliography .....	10
Table 1 – Mandrel winding .....	7



## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –****Part 18: Polyvinyl acetal enamelled rectangular copper wire, class 120**

## 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.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60317-18 has been prepared by IEC technical committee 55: Winding wires.

This fourth edition cancels and replaces the third edition published in 2004 and Amendment 1:2009. This edition constitutes a technical revision.

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

- a) modification of the Scope (Clause 1);
- b) revision to thermal class designation from 105 to 120 in 3.2.2;
- c) renaming of stretching test to adherence test, and modification to the requirements in 8.2;
- d) revision to the cut-through requirement in Clause 10.