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Heat shrinkable low and medium voltage moulded shapes - Part 2 Methods of test

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola označená vo Vestníku ÚNMS SR č. 06/18

Obsahuje: EN IEC 62677-2:2018, IEC 62677-2:2017

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EN IEC 62677-2

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English Version

**Heat shrinkable low and medium voltage moulded shapes - Part
2 Methods of test
(IEC 62677-2:2017)**

Profilés thermorétractables basse et moyenne tensions -
Partie 2: Méthodes d'essai
(IEC 62677-2:2017)

Wärmeschrumpfende Nieder- und Mittelspannungsformteile
- Teil 2: Prüfverfahren
(IEC 62677-2:2017)

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 62677-2:2018 (E)**European foreword**

The text of document 15/807/FDIS, future edition 1 of IEC 62677-2, prepared by IEC/TC 15 "Solid electrical insulating materials", was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62677-2:2018.

The following dates are fixed:

- latest date by which the document has to be implemented at (dop) 2018-08-15 national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2020-11-15

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The text of the International Standard IEC 62677-2:2017 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated :

IEC 62677-1 NOTE Harmonized as EN IEC 62677-1.

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 1 When 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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60212	2010	Standard conditions for use prior to andEN 60212 during the testing of solid electrical insulating materials		2011
IEC 60216-4-1	2006	Electrical insulating materials - ThermalEN 60216-4-1 endurance properties -- Part 4-1: Ageing ovens - Single-chamber ovens		2006
IEC 60216-4-2	2000	Electrical insulating materials - ThermalEN 60216-4-2 endurance properties -- Part 4-2: Ageing ovens - Precision ovens for use up to 300 °C		2000
IEC 60243-1	2013	Electric strength of insulating materials -EN 60243-1 Test methods -- Part 1: Tests at power frequencies		2013
IEC 60250	1969	Recommended methods for the determination of the permittivity and dielectric dissipation factor of electrical insulating materials at power, audio and radio frequencies including metre wavelengths		-
IEC 60587	2007	Electrical insulating materials used underEN 60587 severe ambient conditions - Test methods for evaluating resistance to tracking and erosion		2007
IEC 60695-11-2	2013	Fire hazard testing -- Part 11-2: TestEN 60695-11-2 flames - 1 kW nominal premixed flame: Apparatus, confirmatory test arrangement and guidance		2014
IEC 60695-11-10	2013	Fire hazard testing -- Part 11-10: TestEN 60695-11-10 flames - 50 W horizontal and vertical flame test methods		2013
IEC 62631-3-1	2016	Dielectric and resistive properties of solidEN 62631-3-1 insulating materials - Part 3-1 Determination of resistive properties (DC methods) - Volume resistance and volume resistivity, general method		2016
IEC 62677-3	series	Heat-shrinkable low and medium voltage-moulded shapes - Part 3: Specification for individual materials		series
ISO 62	2008	Plastics - Determination of waterEN ISO 62 absorption		2008

EN IEC 62677-2:2018 (E)

ISO 846	1997	Plastics - Evaluation of the action of microorganisms	EN ISO 846	1997
ISO 4892-3	2016	Plastics - Methods of exposure to laboratory light sources - Part 3: Fluorescent UV lamps	EN ISO 4892-3	2016
ISO 11357-3	2011	Plastics - Differential scanning calorimetry (DSC) - Part 3: Determination of temperature and enthalpy of melting and crystallization	EN ISO 11357-3	2013
ISO 11358-1	2014	Plastics - Thermogravimetry (TG) of polymers - Part 1: General principles	EN ISO 11358-1	2014



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INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Heat shrinkable low and medium voltage moulded shapes –
Part 2: Methods of test**

**Profilés thermorétrtractables basse et moyenne tensions –
Partie 2: Méthodes d'essai**





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INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Heat shrinkable low and medium voltage moulded shapes –
Part 2: Methods of test**

**Profilés thermorétractables basse et moyenne tensions –
Partie 2: Méthodes d'essai**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

HEAT SHRINKABLE LOW AND MEDIUM VOLTAGE MOULDED SHAPES –

Part 2: Methods of test

FOREWORD

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International Standard IEC 62677-2 has been prepared by committee TC15: Solid electrical insulating materials.

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

FDIS	Report on voting
15/807/FDIS	15/811/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

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

A list of all parts in the IEC 62677 series, published under the general title *Heat shrinkable low and medium voltage moulded shapes*, can be found on the IEC website.

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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

This part of IEC 62677 is one of a series which deals with heat shrinkable low and medium voltage moulded shapes. The series consists of three parts:

Part 1: General requirements (IEC 62677-1¹)

Part 2: Methods of test (IEC 62677-2)

Part 3: Material requirements (IEC 62677-3-101², IEC 62677-3-102³ and IEC 62677-3-103⁴)

¹ Under preparation. Stage at the time of publication: IEC RFDIS IEC 62677-1:2017.

² Under preparation. Stage at the time of publication: IEC AFDIS IEC 62677-3-101:2017.

³ Under preparation. Stage at the time of publication: IEC AFDIS IEC 62677-3-102:2017.

⁴ Under preparation. Stage at the time of publication: IEC ACDV IEC 62677-3-103:2017.

HEAT SHRINKABLE LOW AND MEDIUM VOLTAGE MOULDED SHAPES –

Part 2: Methods of test

1 Scope

This part of IEC 62677 gives methods of test for heat shrinkable low and medium voltage moulded shapes in a range of configurations and materials suitable for insulation, environmental sealing, mechanical protection and strain relief for connector/cable terminations and multi-way transitions.

The tests specified are designed to control the quality of the moulded shapes but it is recognized that they are designed to be used in low and medium voltage cable accessories and as such electrical performance will be proven as part of the assembly. Examples of this are described in EN 50393, HD 629.1 and IEC 60502-4.

2 Normative references

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 60212:2010, *Standard conditions for use prior to and during the testing of solid electrical insulating materials*

IEC 60216-4-1:2006, *Electrical insulating materials – Thermal endurance properties – Part 4-1: Ageing ovens – Single-chamber ovens*

IEC 60216-4-2:2000, *Electrical insulating materials – Thermal endurance properties – Part 4-2: Ageing ovens – Precision ovens for use up to 300 °C*

IEC 60243-1:2013, *Electric strength of insulating materials – Test methods – Part 1: Tests at power frequencies*

IEC 60250:1969, *Recommended methods for the determination of the permittivity and dielectric dissipation factor of electrical insulating materials at power, audio and radio frequencies including metre wavelengths*

IEC 60587:2007, *Electrical insulating materials used under severe ambient conditions – Test methods for evaluating resistance to tracking and erosion*

IEC 62631-3-1:2016, *Dielectric and resistive properties of solid insulating materials – Part 3-1: Determination of resistive properties (DC methods) – Volume resistance and volume resistivity General method*

IEC 60695-11-2:2013, *Fire hazard testing – Part 11-2: Test flames – 1 kW pre-mixed flame – Apparatus, confirmatory test arrangement and guidance*

IEC 60695-11-10:2013, *Fire hazard testing – Part 11-10: Test flames – 50 W horizontal and vertical flame test methods*

IEC 62677-3 (all parts), *Heat shrinkable low and medium voltage moulded shapes*

ISO 62:2008, *Plastics – Determination of water absorption*

ISO 846:1997, *Plastics – Evaluation of the action of microorganisms*

ISO 4892-3:2016, *Plastics – Methods of exposure to laboratory light sources – Part 3: Fluorescent UV lamps*

ISO 11357-3:2011, *Plastics – Differential scanning calorimetry (DSC) – Part 3: Determination of temperature and enthalpy of melting and crystallization*

ISO 11358-1:2014, *Plastics – Thermogravimetry (TG) of polymers - Part1: General principles*

ISO 11358-2:2014, *Plastics – Thermogravimetry (TG) of polymers - Part 2: Determination of activation energy*

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