

SLOVENSKI STANDARD
SIST EN 60893-3-3:2004/A1:2012
01-september-2012

Izolacijski materiali - Industrijske toge laminirane plošče iz smol s toplotnim utrjevanjem za električne namene - 3-3. del: Specifikacije za posamezne materiale - Zahteve za toge laminirane plošče na osnovi melaminskih smol

Insulating materials - Industrial rigid laminated sheets based on thermosetting resins for electrical purposes - Part 3-3: Specifications for individual materials - Requirements for rigid laminated sheets based on melamine resins

iTeh STANDARD PREVIEW

Isolierstoffe - Tafeln aus technischen Schichtpressstoffen auf der Basis wärmehärtender Harze für elektrotechnische Zwecke - Teil 3-3: Bestimmungen für einzelne Werkstoffe - Anforderungen für Tafeln aus Schichtpressstoffen auf der Basis von Melaminharzen

[SIST EN 60893-3-3:2004/A1:2012](https://standards.iteh.ai/catalog/standards/sist/6ec8fc6c-5b89-439f-bc4a-311111111111/sist-en-60893-3-3-2004-a1-2012)

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Matériaux isolants - Stratifiés industriels rigides en planches à base de résines thermodurcissables à usages électriques - Partie 3-3: Spécifications pour matériaux particuliers - Prescriptions pour stratifiés rigides en planches à base de résine mélamine

Ta slovenski standard je istoveten z: EN 60893-3-3:2004/A1:2012

ICS:

29.035.20 Plastični in gumeni izolacijski materiali Plastics and rubber insulating materials

SIST EN 60893-3-3:2004/A1:2012 en,fr,de

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**Insulating materials -
Industrial rigid laminated sheets based on thermosetting
resins for electrical purposes -
Part 3-3: Specifications for individual materials -
Requirements for rigid laminated sheets based on melamine resins
(IEC 60893-3-3:2003/A1:2011)**

Matériaux isolants -
Stratifiés industriels rigides en planches
à base de résines thermodurcissables
à usages électriques -
Partie 3-3: Spécifications pour matériaux
particuliers -
Prescriptions pour stratifiés rigides en
planches à base de résine mélamine
(CEI 60893-3-3:2003/A1:2011)

Isolierstoffe - Tafeln aus technischen
Schichtpressstoffen auf der Basis
warmhärtender Harze für
elektrotechnische Zwecke -
Teil 3-3: Bestimmungen für einzelne
Werkstoffe - Anforderungen für Tafeln
aus Schichtpressstoffen auf der Basis von
Melaminharzen
(IEC 60893-3-3:2003/A1:2011)

[SIST EN 60893-3-3:2004/A1:2012](https://standards.iteh.ai/catalog/standards/sist/6ec8fc6c-5b89-439f-bc4a-61b3-541b4a-660893-3-3-2004/a1-2012)

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This amendment A1 modifies the European Standard EN 60893-3-3:2004; it was approved by CENELEC on 2012-01-02. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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.

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CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 15/489/CDV, future amendment 1 to edition 2 of IEC 60893-3-3:2003/A1:2011, prepared by IEC/TC 15 "Solid electrical insulating materials" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60893-3-3:2004/A1:2012.

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) 2012-12-29
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-01-02

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 60893-3-3:2003/A1:2011 was approved by CENELEC as a European Standard without any modification.

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 1
AMENDEMENT 1

**Insulating materials – Industrial rigid laminated sheets based on thermosetting resins for electrical purposes –
Part 3-3: Specifications for individual materials – Requirements for rigid laminated sheets based on melamine resins**

[SIST EN 60893-3-3:2004/A1:2012](https://standards.iteh.ai/catalog/standards/sist/6ec8fc6c-5b89-439f-bc4a-515111111111/sist-en-60893-3-3-2004/a1-2012)

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**Matériaux isolants – Stratifiés industriels rigides en planches à base de résines thermodurcissables à usages électriques –
Partie 3-3: Spécifications pour matériaux particuliers – Prescriptions pour stratifiés rigides en planches à base de résine mélamine**

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FOREWORD

This amendment 1 of IEC 60893-3-3 has been prepared by IEC technical committee 15: Solid electrical insulating materials.

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

CDV	Report on voting
15/489/CDV	15/616/RVC

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

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

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

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Introduction to the amendment

<https://standards.iteh.ai/catalog/standards/sist/6ec8fc6c-5b89-439f-bc4a-2a61b13454d1/sist-en-60893-3-3-2004-a1-2013>

This amendment introduces revised limits for CHARPY and IZOD impact strengths for the requirements of all types of rigid laminated sheets based on melamine resins. These revised limits are based on the results of round-robin testing.

Table 5 – Property requirements

Replace the existing table with the following new table:

Table 5 – Property requirements

Property	Test method in IEC 60893-2 Subclause	Unit	Minimum or Maximum	Nominal thickness of sheet to which test is applicable mm	Type		Remarks
					MF CC 201	MF GC 201	
Flexural strength	5.1	MPa	Minimum	≥ 1.5	70	240	
Charpy impact strength or Izod impact strength parallel to laminations	5.4.2 or 5.4.3	kJ/m^2	Minimum	≥ 5	3	35	Conformance with the requirements for either the Charpy or Izod test constitutes, in this respect, conformance with this specification.
Electric strength at 90 °C in oil perpendicular to laminations	6.1	kV/mm	Minimum	≥ 3	15	15	
Breakdown voltage at 90 °C in oil parallel to laminations	6.1	kV	Minimum	> 3	15	15	
Insulation resistance after immersion in water	6.3	$\text{M}\Omega$	Minimum	All	1×10^1	1×10^2	
Proof tracking index	6.4	–	Minimum	≥ 3	500	500	
Flammability	7.2	Category		3	V-0	V-0	The small-scale laboratory test used in this standard for assigning a flammability category is primarily for monitoring consistency of production of laminates. The results so obtained should not in any circumstances be considered as an overall indication of the potential fire hazards presented by these laminates under actual conditions of use.
Water absorption	8.2	mg	Maximum	All	See Table 7		