
Izolacijski materiali - Industrijske toge laminirane plošče iz smol s toplotnim utrjevanjem za električne namene - 3-4. del: Specifikacije za posamezne materiale - Zahteve za toge laminirane plošče na osnovi fenolnih smol (IEC 60893-3-4:2003)

Insulating materials - Industrial rigid laminated sheets based on thermosetting resins for electrical purposes - Part 3-4: Specifications for individual materials - Requirements for rigid laminated sheets based on phenolic resins (IEC 60893-3-4:2003)

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EUROPEAN STANDARD

EN 60893-3-4

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2004

ICS 29.035.01

Supersedes EN 60893-3-4:1995

English version

**Insulating materials –
Industrial rigid laminated sheets based on
thermosetting resins for electrical purposes
Part 3-4: Specifications for individual materials –
Requirements for rigid laminated sheets based on phenolic resins
(IEC 60893-3-4:2003)**

Matériaux isolants –
Stratifiés industriels rigides en planches
à base de résines thermodurcissables
à usages électriques
Partie 3-4: Spécification pour matériaux
particuliers –
Prescriptions pour stratifiés rigides
en planches à base de résine phénolique
(CEI 60893-3-4:2003)

Isolierstoffe –
Tafeln aus technischen Schichtpress-
stoffen auf der Basis wärmehärtender
Harze für elektrotechnische Zwecke
Teil 3-4: Bestimmungen für einzelne
Werkstoffe –
Anforderungen für Tafeln aus
Schichtpressstoffen auf der Basis
von Phenolharzen
(IEC 60893-3-4:2003)

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This European Standard was approved by CENELEC on 2003-12-01. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 15C/1524/FDIS, future edition 2 of IEC 60893-3-4, prepared by SC 15C, Specifications, of IEC TC 15, Insulating materials, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60893-3-4 on 2003-12-01.

This European Standard supersedes EN 60893-3-4:1995.

In this revision of the EN 60893 series of specifications, new material types have been included, changes have been made to the property requirements of some existing types, a new method for testing permittivity and dissipation factor has been added, and all non-specification data for each type has been moved to a new Part 4 document – IEC/TR 60893-4: Typical values.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2004-09-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2006-12-01

Annex ZA has been added by CENELEC.

iTeh STANDARD PREVIEW (standards.iteh.ai) Endorsement notice

[SIST EN 60893-3-4:2004](#)

The text of the International Standard IEC 60893-3-4:2003 was approved by CENELEC as a European Standard without any modification. [http://standards.iteh.ai/catalog/standards/sist-en-60893-3-4-2004](#)

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

IEC 60893-3-1 NOTE Harmonized as EN 60893-3-1:2004 (not modified).

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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 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>
IEC 60893-1	- ¹⁾	Insulating materials - Industrial rigid laminated sheets based on thermosetting resins for electrical purposes Part 1: Definitions, designations and general requirements	EN 60893-1	- ¹⁾
IEC 60893-2	2003	Part 2: Methods of test	EN 60893-2	- ¹⁾

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1) To be published.

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**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC**

60893-3-4

Deuxième édition
Second edition
2003-11

**Matériaux isolants –
Stratifiés industriels rigides en planches
à base de résines thermodurcissables
à usages électriques –**

**Partie 3-4:
Spécifications pour matériaux particuliers –
Prescriptions pour stratifiés rigides en planches
à base de résine phénolique**

**Insulating materials –
Industrial rigid laminated sheets based on
thermosetting resins for electrical purposes –**

**Part 3-4:
Specifications for individual materials –
Requirements for rigid laminated sheets
based on phenolic resins**

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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PRICE CODE

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For price, see current catalogue*

CONTENTS

FOREWORD.....	5
INTRODUCTION.....	9
1 Scope.....	11
2 Normative references.....	11
3 Designation	11
4 Requirements	13
Bibliography.....	29

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**INSULATING MATERIALS –
INDUSTRIAL RIGID LAMINATED SHEETS
BASED ON THERMOSETTING RESINS FOR ELECTRICAL PURPOSES –****Part 3-4: Specifications for individual materials –
Requirements for rigid laminated sheets based on phenolic resins**

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.
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International Standard IEC 60893-3-4 has been prepared by subcommittee 15C: Specifications, of IEC technical committee 15: Insulating materials.

This second edition cancels and replaces the first edition, published in 1993, and constitutes a technical revision.

In this revision of the IEC 60893 series of specifications, new material types have been included, changes have been made to the property requirements of some existing types, a new method for testing permittivity and dissipation factor has been added, and all non-specification data for each type has been moved to a new Part 4 document – IEC 60893-4 – Typical values.

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

FDIS	Report on voting
15C/1524/FDIS	15C/1538/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.

The committee has decided that the contents of this publication will remain unchanged until 2010. At this date, the publication will be

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

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INTRODUCTION

This part of IEC 60893 is one of a series, which deals with industrial rigid laminated sheets based on thermosetting resins for electrical purposes.

This series consists of four parts:

Part 1: Definitions, designations and general requirements (IEC 60893-1)

Part 2: Methods of test (IEC 60893-2)

Part 3: Specifications for individual materials (IEC 60893-3)

Part 4: Typical values (IEC 60893-4)

IEC 60893-3-4 contains one of the specification sheets comprising Part 3, as follows:

Sheet 4: Requirements for rigid laminated sheets based on phenolic resins

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