

---

---

**Izolacijski materiali - Industrijske toge laminirane plošče iz smol s toplotnim utrjevanjem za električne namene - 3-6. del: Specifikacije za posamezne materiale - Zahteve za toge laminirane plošče na osnovi poliestrskih smol (IEC 60893-3-5:2003)**

Insulating materials - Industrial rigid laminated sheets based on thermosetting resins for electrical purposes - Part 3-5: Specifications for individual materials - Requirements for rigid laminated sheets based on polyester resins (IEC 60893-3-5:2003)

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

[SIST EN 60893-3-5:2004](https://standards.iteh.ai/catalog/standards/sist/17c447e0-bd6c-4790-8499-d3e87cebe40a/sist-en-60893-3-5-2004)

<https://standards.iteh.ai/catalog/standards/sist/17c447e0-bd6c-4790-8499-d3e87cebe40a/sist-en-60893-3-5-2004>

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

SIST EN 60893-3-5:2004

<https://standards.iteh.ai/catalog/standards/sist/17c447e0-bd6c-4790-8499-d3e87cebe40a/sist-en-60893-3-5-2004>

English version

**Insulating materials –  
Industrial rigid laminated sheets based on  
thermosetting resins for electrical purposes  
Part 3-5: Specifications for individual materials –  
Requirements for rigid laminated sheets  
based on polyester resins  
(IEC 60893-3-5:2003)**

Matériaux isolants –  
Stratifiés industriels rigides en planches  
à base de résines thermodurcissables  
à usages électriques  
Partie 3-5: Spécifications pour matériaux  
particuliers –  
Prescriptions pour stratifiés rigides  
en planches à base de résine polyester  
(CEI 60893-3-5:2003)

Isolierstoffe –  
Tafeln aus technischen Schichtpress-  
stoffen auf der Basis wärmehärtender  
Harze für elektrotechnische Zwecke  
Teil 3-5: Bestimmungen für einzelne  
Werkstoffe –  
Anforderungen für Tafeln aus  
Schichtpressstoffen auf der Basis  
von Polyesterharzen  
(IEC 60893-3-5:2003)

<https://standards.iteh.ai/catalog/standards/sist/17c447c0-bd0c-4790-8499-d3e87cebe40a/sist-en-60893-3-5-2004>

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/1525/FDIS, future edition 2 of IEC 60893-3-5, 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 60893-3-5 on 2003-12-01.

This European Standard supersedes EN 60893-3-5:1995.

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 60893-3-5:2004](#)

The text of the International Standard IEC 60893-3-5:2003 was approved by CENELEC as a European Standard without any modification. [idref:10a/sist-en-60893-3-5-2004](#)

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	- <sup>1)</sup>	Insulating materials - Industrial rigid laminated sheets based on thermosetting resins for electrical purposes Part 1: Definitions, designations and general requirements	EN 60893-1	- <sup>1)</sup>
IEC 60893-2	2003	Part 2: Methods of test	EN 60893-2	- <sup>1)</sup>
IEC 60587	- <sup>2)</sup>	Test methods for evaluating resistance to tracking and erosion of electrical insulating materials used under severe ambient conditions	HD 380 S2	1987 <sup>3)</sup>

[SIST EN 60893-3-5:2004](https://standards.iteh.ai/catalog/standards/sist/17c447e0-bd6c-4790-8499-d3e87cebe40a/sist-en-60893-3-5-2004)

<https://standards.iteh.ai/catalog/standards/sist/17c447e0-bd6c-4790-8499-d3e87cebe40a/sist-en-60893-3-5-2004>

---

1) To be published.

2) Undated reference.

3) Valid edition at date of issue.

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

SIST EN 60893-3-5:2004

<https://standards.iteh.ai/catalog/standards/sist/17c447e0-bd6c-4790-8499-d3e87cebe40a/sist-en-60893-3-5-2004>

**NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD**

**CEI  
IEC**

**60893-3-5**

Deuxième édition  
Second edition  
2003-11

---

---

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

**Partie 3-5:  
Spécifications pour matériaux particuliers –  
Prescriptions pour stratifiés rigides en planches  
à base de résine polyester**

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

**Part 3-5:  
Specifications for individual materials –  
Requirements for rigid laminated sheets  
based on polyester resins**

© IEC 2003 Droits de reproduction réservés — Copyright - all rights reserved

Aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'éditeur.

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Electrotechnical Commission, 3, rue de Varembe, PO Box 131, CH-1211 Geneva 20, Switzerland  
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

CODE PRIX  
PRICE CODE

L

Pour prix, voir catalogue en vigueur  
For price, see current catalogue

## CONTENTS

FOREWORD.....	5
INTRODUCTION.....	9
1 Scope.....	11
2 Normative references.....	11
3 Designation .....	11
4 Requirements .....	13
Bibliography.....	23

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

SIST EN 60893-3-5:2004

<https://standards.iteh.ai/catalog/standards/sist/17c447e0-bd6c-4790-8499-d3e87cebe40a/sist-en-60893-3-5-2004>



## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**INSULATING MATERIALS –  
INDUSTRIAL RIGID LAMINATED SHEETS  
BASED ON THERMOSETTING RESINS FOR ELECTRICAL PURPOSES –****Part 3-5: Specifications for individual materials –  
Requirements for rigid laminated sheets based on polyester 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.
- 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 provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
- 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 60893-3-5 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.