

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**

ICS 29.035.20

National foreword

This British Standard is the UK implementation of EN 60893-3-4:2004+A1:2012. It is identical to IEC 60893-3-4:2003, incorporating amendment 1:2012 and corrigendum March 2014. It supersedes BS EN 60893-3-4:2004, which will be withdrawn on 16 November 2015.

National Annex NA (informative) gives guidance on sheet types and their corresponding types as they appear in the current and previous editions of this standard.

The UK participation in its preparation was entrusted by Technical Committee GEL/15, Solid electrical insulating materials, to Subcommittee GEL/15/6, Rigid fibrous reinforced laminates for electrical purposes.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 27 February 2004

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Amendments/corrigenda issued since publication

Date	Comments
30 June 2013	Implementation of IEC amendment 1:2012, with CENELEC endorsement A1:2012: Table 5 updated. National Annex NA inserted
30 April 2014	Implementation of IEC corrigendum March 2014: Updated value in row nine of the 15th column in Table 7

**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)

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 IEC60893-3-4, prepared by SC15C, 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.

Endorsement notice

The text of the International Standard IEC60893-3-4:2003 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 60893-3-1 NOTE Harmonized as EN 60893-3-1:2004 (not modified).

Foreword to amendment A1

The text of document 15/682/FDIS, future amendment 1 to edition 2 of IEC 60893-3-4, prepared by IEC/TC 15 "Solid electrical insulating materials" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60893-3-4:2004/A1:2012.

The following dates are fixed:

- latest date by which the document has (dop) 2013-08-16
to be implemented at national level by
publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2015-11-16
standards conflicting with the
document have to be withdrawn

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Endorsement notice

The text of the International Standard IEC 60893-3-4:2003/A1:2012 was approved by CENELEC as a European Standard without any modification.

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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