

Specification for industrial rigid laminated sheets based on thermosetting resins for electrical purposes —

**Part 3: Specifications for individual
materials —**

**Sheet 2: Requirements for rigid laminated
sheets based on epoxide resins**

The European Standard EN 60893-3-2A/1:1999 has the status of a
British Standard

ICS 29.035.20

National foreword

This British Standard is the English language version of EN 60893-3-2A/1:1999. It is identical with IEC 60893-3-2 Ed 1.1:1998. It supersedes BS EN 60893-3-2:1995 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee GEL/15, Insulating materials, to Subcommittee GEL/15/3, Material specifications, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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

From 1 January 1997, all IEC publications have the number 60000 added to the old number. For instance, IEC 27-1 has been renumbered as IEC 60027-1. For a period of time during the change over from one numbering system to the other, publications may contain identifiers from both systems.

Cross-references

Attention is drawn to the fact that CEN and CENELEC Standards normally include an annex which lists normative references to international publications with their corresponding European publications. The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 15 and a back cover.

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Amendments issued since publication

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English version

**Specification for industrial rigid laminated sheets based on
thermosetting resins for electrical purposes
Part 3: Specifications for individual materials
Sheet 2: Requirements for rigid laminated sheets based on epoxide resins
(IEC 60893-3-2:1993/A1:1998)**

Spécification pour les stratifiés
industriels rigides en planches à base
de résines thermodurcissables à usages
électriques
Partie 3: Spécifications pour matériaux
particuliers
Feuille 2: Prescriptions pour les stratifiés
rigides en planches à base de résine
époxyde
(CEI 60893-3-2:1993/A1:1998)

Bestimmung für Tafeln aus technischen
Schichtpreßstoffen auf der Basis
wärmehärtbarer Harze für
elektrotechnische Zwecke
Teil 3: Bestimmungen für einzelne
Werkstoffe
Blatt 2: Anforderungen für
Schichtpreßstofftafeltypen auf der
Basis von Epoxidharz
(IEC 60893-3-2:1993/A1:1998)

This amendment A1 modifies the European Standard EN 60893-3-2:1995; it was approved by CENELEC on 1999-10-01. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, 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/861/FDIS, future amendment 1 to IEC 60893-3-2, 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 amendment A1 to EN 60893-3-2:1995 on 1999-10-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2000-07-01
- latest date by which the national standards conflicting
with the amendment have to be withdrawn (dow) 2002-10-01

Endorsement notice

The text of amendment 1:1998 to the International Standard IEC 60893-3-2:1993 was approved by CENELEC as an amendment to the European Standard without any modification.

INTRODUCTION

This International Standard is one of a series which deals with industrial rigid laminated sheets based on thermosetting resins for electrical purposes.

Insofar as technical considerations permit, this standard repeats (recapitulates) a classification of laminates similar to that of ISO 1642.

The series consists of three 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).

This standard contains one of the sheets comprising part 3, as follows:

Sheet 2: Requirements for rigid laminated sheets based on epoxide resin.

SPECIFICATION FOR INDUSTRIAL RIGID LAMINATED SHEETS BASED ON THERMOSETTING RESINS FOR ELECTRICAL PURPOSES –

Part 3: Specifications for individual materials – Sheet 2: Requirements for rigid laminated sheets based on epoxide resins

1 General

1.1 Scope

This International Standard gives the requirements for industrial rigid laminated sheets for electrical purposes based on epoxide resins and different reinforcements.

Applications and distinguishing properties are given in table 1.

According to part 1: (IEC 60893-1), the individual types are designated by a first group of two letters for resin (e.g. EP for epoxide), a second group of two letters for the reinforcement followed by a serial number of three digits. The abbreviations are given in part 1.

1.2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60249, *Base materials for printed circuits*

IEC 60893-1:1987, *Specification for industrial rigid laminated sheets based on thermosetting resins for electrical purposes – Part 1: Definitions, designations and general requirements*

IEC 60893-2:1992, *Specification for industrial rigid laminated sheets based on thermosetting resins for electrical purposes – Part 2: Methods of test*

ISO 1642:1987, *Plastics – Industrial laminated sheets based on thermosetting resins – Specification*

2 Designation

The laminated sheets shall be identified by the designation which follows:

IEC 60893 – 3 – 2 – Resin abbreviation – Reinforcement abbreviation – Serial number – Nominal thickness in millimetres.

Example: IEC 60893 – 3 – 2 – EP GC 201 – 2,5