

Resin based reactive compounds used for electrical insulation - Part 3:  
Specifications for individual materials - Sheet 5: Unsaturated polyester based  
impregnating resins (IEC 60455-3-5:1998)

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English version

**Resin based reactive compounds used for electrical insulation**  
**Part 3: Specifications for individual materials**  
**Sheet 5: Unsaturated polyester based impregnating resins**  
(IEC 60455-3-5:2001)

Composés réactifs à base de résine  
utilisés comme isolants électriques  
Partie 3: Spécifications pour  
matériaux particuliers  
Feuille 5: Résines d'imprégnation à base  
de polyester insaturé  
(CEI 60455-3-5:2001)

Lösemittelfreie härtbare Reaktions-  
harzmassen für die Elektroisolierung  
Teil 3: Bestimmungen für  
einzelne Materialien  
Blatt 5: Imprägnierharzwerkstoffe auf  
Basis ungesättigter Polyester  
(IEC 60455-3-5:2001)

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This European Standard was approved by CENELEC on 2001-09-01. 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, 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/1220/FDIS, future edition 2 of IEC 60455-3-5, 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 60455-3-5 on 2001-09-01.

This European Standard supersedes HD 307.3.5 S1:1991.

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) 2002-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2004-09-01

Annexes designated "normative" are part of the body of the standard.  
In this standard, annex ZA is normative.  
Annex ZA has been added by CENELEC.

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**Endorsement notice**  
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The text of the International Standard IEC 60455-3-5:2001 was approved by CENELEC as a European Standard without any modification.

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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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 60172	1987	Test procedure for the determination of the temperature index of enamelled winding wires	EN 60172	1994
IEC 60317-8	1990	Specifications for particular types of winding wires Part 8: Polyesterimide enamelled round copper wire, class 180	EN 60317-8	1994
IEC 60317-13	1990	Part 13: Polyester or polyesterimide overcoated with polyamide-imide enamelled round copper wire, class 200	EN 60317-13	1994
IEC 60455-1	1998	Resin based reactive compounds used for electrical insulation Part 1: Definitions and general requirements	EN 60455-1	1998
IEC 60455-2	1998	Part 2: Methods of test	EN 60455-2	1999
IEC 60464-2	2001	Varnishes used for electrical insulation Part 2: Methods of test	EN 60464-2	2001
IEC 61033	1991	Test methods for the determination of bond strength of impregnating agents to an enamelled wire substrate	-	-

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NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD

CEI  
IEC

60455-3-5

Deuxième édition  
Second edition  
2001-07

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**Composés réactifs à base de résine  
utilisés comme isolants électriques –**

**Partie 3:  
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**Part 3:  
Specifications for individual materials –  
Sheet 5: Unsaturated polyester based  
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International Electrotechnical Commission  
Международная Электротехническая Комиссия

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For price, see current catalogue

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**RESIN BASED REACTIVE COMPOUNDS  
USED FOR ELECTRICAL INSULATION –**
**Part 3: Specifications for individual materials –  
Sheet 5: Unsaturated polyester based impregnating resins**

## FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The 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 the 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 National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
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- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60455-3-5 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 1989.

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

FDIS	Report on voting
15C/1220/FDIS	15C/1249/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 3.

The committee has decided that the contents of this publication will remain unchanged until 2005. At this date, the publication will be

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



## INTRODUCTION

This part of IEC 60455 is one of a series which deals with specifications for resin based reactive compounds and their components used for electrical insulation. The series consists of three parts:

Part 1: Definitions and general requirements (IEC 60455-1);

Part 2: Methods of test (IEC 60455-2);

Part 3: Specifications for individual materials (IEC 60455-3).

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

Sheet 5: Unsaturated polyester based impregnating resins.

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