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**Specification for solventless polymerisable resinous compounds used for electrical insulation - Part 3: Specifications for individual materials - Sheet 5: Unsaturated polyester impregnating (IEC 60455-3-5:1989)**

Specification for solventless polymerisable resinous compounds used for electrical insulation -- Part 3: Specifications for individual materials -- Sheet 5: Unsaturated polyester impregnating

Bestimmung für lösemittelfreie härtbare Reaktionsharzmassen für die Elektroisolierung -- Teil 3: Anforderungen an einzelne Werkstoffe -- Blatt 5: Imprägnierharzwerkstoffe auf Basis ungesättigter Polyester

[SIST HD 307.3.5 S1:1998](https://standards.iteh.ai/catalog/standards/sist/71478de2-124d-48ab-bab6-)

Spécification relative aux composés résineux polymérisables sans solvant utilisés comme isolants électriques -- Partie 3: Spécifications pour les matériaux particuliers -- Feuille 5: Résines d'imprégnation en polyester insaturé

**Ta slovenski standard je istoveten z: HD 307.3.5 S1:1991**

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**ICS:**

29.035.01	Izolacijski materiali na splošno	Insulating materials in general
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**SIST HD 307.3.5 S1:1998****en**

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HARMONIZATION DOCUMENT

HD 307.3.5 S1

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

October 1991

UDC 621.315.616.96

Descriptors: Electric insulation, electrical insulating material,  
polyester resin, specifications

## ENGLISH VERSION

SPECIFICATION FOR SOLVENTLESS POLYMERISABLE  
RESINOUS COMPOUNDS USED FOR ELECTRICAL INSULATION  
PART 3: SPECIFICATIONS FOR INDIVIDUAL MATERIALS  
SHEET 5: UNSATURATED POLYESTER IMPREGNATING RESINS  
(IEC 455-3-5:1989)

Spécification relative aux  
composés résineux polymérisables  
sans solvant utilisés comme  
isolants électriques  
Troisième partie: Spécifications  
pour les matériaux particuliers  
Feuille 5 : Résines  
d'imprégnation en polyester  
insaturé  
(CEI 455-3-5:1989)

Bestimmung für  
lösemittelfreie härtbare  
Reaktionsharzmassen für die  
Elektroisolierung  
Teil 3: Anforderungen an  
einzelne Werkstoffe  
Blatt 5:  
Imprägnierharzwerkstoffe auf  
Basis ungesättigter Polyester  
(IEC 455-3-5:1989)

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This Harmonization Document was approved by CENELEC on 1991-09-23.  
CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations  
which stipulate the conditions for implementation of this Harmonization Document  
on a national level.

Up-to-date lists and bibliographical references concerning national implementation  
may be obtained on application to the Central Secretariat or to any CENELEC member.

This Harmonization Document exists in three official versions (English, French,  
German).

CENELEC members are the national electrotechnical committees of Austria, Belgium,  
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 CENELEC questionnaire procedure, performed for finding out whether or not the International Standard IEC 455-3-5:1989 could be accepted without textual changes, has shown that no CENELEC common modifications were necessary for the acceptance as Harmonization Document. The reference document was submitted to the CENELEC members for formal vote and was approved by CENELEC as HD 307.3.5 S1 on 1991-09-23.

The following dates were fixed:

- latest date of announcement  
of the HD at national level (doa) 1992-04-01
- latest date of publication of  
a harmonized national standard (dop) 1992-10-01
- latest date of withdrawal of  
conflicting national standards (dow) 1992-10-01

For products which have complied with the relevant national standard before 1992-10-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 1997-10-01.

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Annexes designated "normative" are part of the body of the standard. In this standard, annex ZA is normative.

### ENDORSEMENT NOTICE

The text of the International Standard IEC 455-3-5:1989 was approved by CENELEC as a Harmonization Document without any modification.

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## ANNEX ZA (normative)

OTHER INTERNATIONAL PUBLICATIONS QUOTED IN THIS STANDARD  
WITH THE REFERENCES OF THE RELEVANT EUROPEAN PUBLICATIONS

When the international publication has been modified by CENELEC common modifications, indicated by (mod), the relevant EN/HD applies.

<u>IEC Publication</u>	<u>Date</u>	<u>Title</u>	<u>EN/HD</u>	<u>Date</u>
68-2-10	1984	Basic environmental testing procedures Part 2: Tests - Test J: Mould growth	HD 323.2.10 S2*	1987
79-7	1969	Electrical apparatus for explosive gas atmospheres - Part 7: Construction and test of electrical apparatus, type of protection "e"	-	-
216		Guide for the determination of thermal endurance properties of electrical insulating materials	-	-
370	1971	Test procedure for thermal endurance of insulating varnishes - Electric strength method	HD 570 S1	1990
455-1	1974	Specification for solventless poly- merisable resinous compounds used for electrical insulation - Part 1: Defini- tions and general requirements	HD 307.1 S1*	1977
455-2	1977	Part 2: Methods of test	HD 307.2 S1*	1986
464-2	1974	Specification for insulating varnishes containing solvent - Part 2: Tests methods	-	-

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- \* HD 323.2.10 S2 is superseded by HD 323.2.10 S3:1988, which is based on IEC 68-2-10:1988
- \* HD 307.1 S1 is superseded by HD 307.1 S2:1981, which is based on IEC 455-1 + supplement A:1980
- \* HD 307.2 S1 includes A1:1982 to IEC 455-2

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NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD

**CEI  
IEC  
455-3-5**

Première édition  
First edition  
1989-10

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**Spécification relative aux composés résineux  
polymérisables sans solvant utilisés  
comme isolants électriques**

**Troisième partie:**

Spécifications pour les matériaux particuliers  
Feuille 5: Résines d'impregnation en polyester  
(insaturé)

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**Specification for solventless polymerisable  
resinous compounds used for electrical  
insulation**

**Part 3:**

Specifications for individual materials  
Sheet 5: Unsaturated polyester impregnating  
resins



Numéro de référence  
Reference number  
CEI/IEC 455-3-5: 1989

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

SPECIFICATION FOR SOLVENTLESS POLYMERISABLE RESINOUS  
COMPOUNDS USED FOR ELECTRICAL INSULATION

## Part 3: Specifications for individual materials

## Sheet 5: Unsaturated polyester impregnating resins

## FOREWORD

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.
- 4) The IEC has not laid down any procedure concerning marking as an indication of approval and has no responsibility when an item of equipment is declared to comply with one of its recommendations.

## PREFACE

This standard has been prepared by Sub-Committee 15C: Specifications, of IEC Technical Committee No. 15: Insulating materials.

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

Six Months' Rule	Voting Reports	Two Months' Procedure	Voting Report
15C(C0)222	15C(C0)239 and 239A	15C(C0)242	15C(C0)254

Full information on the voting for the approval of this standard can be found in the Voting Reports indicated in the above table.



The following IEC publications are quoted in this standard:

- Publications Nos. 68-2-10 (1984): Basic environmental testing procedures, Part 2: Tests - Test J: Mould growth.
- 79-7 (1969): Electrical apparatus for explosive gas atmospheres, Part 7: Construction and test of electrical apparatus, type of protection "e".
- 216: Guide for the determination of thermal endurance properties of electrical insulating materials.
- 370 (1971): Test procedure for thermal endurance of insulating varnishes - Electric strength method.
- 455-1 (1974): Specification for solventless polymerisable resinous compounds used for electrical insulation; Part 1: Definitions and general requirements.

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455-2 (1977): Part 2: Methods of test.

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464-2 (1974): Specification for insulating varnishes containing solvent, Part 2: Test methods.

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