

SLOVENSKI STANDARD

SIST HD 307.3.2 S2:1998

prva izdaja
oktober 1998

Specification for solventless polymerisable resinous compounds used for electrical insulation - Part 3: Specifications for individual materials - Sheet 2: Quartz filled epoxy resinous compounds (IEC 60455-3-2:1987 + IEC 60455-3-2:1987/A1:1994)

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ICS 29.035.01

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Descriptors: Solid insulating material, solventless polymerisable resinous compounds, quartz filled epoxy resinous compounds, specification

English version

**Specification for solventless polymerisable resinous
compounds used for electrical insulation
Part 3: Specifications for individual materials
Sheet 2: Quartz filled epoxy resinous compounds
(IEC 455-3-2:1987 + A1:1994)**

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

Partie 3: Spécifications pour les
matériaux particuliers

Feuille 2: Composés résineux

époxydes chargés de silice
(CEI 455-3-2:1987 + A1:1994)

Bestimmung für lösemittelfreie
härtbare Reaktionsharzmassen für
die Elektroisolierung

Teil 3: Anforderungen an einzelne
Werkstoffe

Blatt 2: Mit Quarzmehl gefüllte
Epoxidharzwerkstoffe

(IEC 455-3-2:1987 + A1:1994)

This Harmonization Document was approved by CENELEC on 1997-03-11. 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 such 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 text of the International Standard IEC 455-3-2:1987 and its amendment 1:1994, prepared by SC 15C, Specifications, of IEC TC 15, Insulating materials, was submitted to the formal vote and was approved by CENELEC as HD 307.3.2 S2 on 1997-03-11 without any modification.

The following dates were fixed:

- latest date by which the existence of the HD has to be announced at national level (doa) 1997-06-01
- latest date by which the HD has to be implemented at national level by publication of a harmonized national standard or by endorsement (dop) 1997-12-01
- latest date by which the national standards conflicting with the HD have to be withdrawn (dow) 1997-12-01

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 455-3-2:1987 and its amendment 1:1994 was approved by CENELEC as a Harmonization Document 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 707	1981	Methods of test for the determination of the flammability of solid electrical insulating materials when exposed to an igniting source	HD 441 S1	1983

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NORME INTERNATIONALE INTERNATIONAL STANDARD

CEI
IEC
455-3-2

Première édition
First edition
1987



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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

Troisième partie: Spécifications pour les matériaux particuliers
Feuille 2: Composés résineux époxydes chargés de silice

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Specification for solventless polymerisable resinous compounds used for electrical insulation

Part 3: Specifications for individual materials
Sheet 2: Quartz filled epoxy resinous compounds

INTERNATIONAL ELECTROTECHNICAL COMMISSION

SPECIFICATION FOR SOLVENTLESS POLYMERISABLE RESINOUS COMPOUNDS USED FOR ELECTRICAL INSULATION

Part 3: Specifications for individual materials Sheet 2: Quartz filled epoxy resinous compounds

FOREWORD

- 1) The formal decisions or agreements of the I E C 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 I E C expresses the wish that all National Committees should adopt the text of the I E C recommendation for their national rules in so far as national conditions will permit. Any divergence between the I E C recommendations and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

iTeh STANDARD PREVIEW (standards.iteh.ai) PREFACE

This standard has been prepared by Sub-Committee 15C: Specifications, of I E C Technical Committee No. 15: Insulating Materials. SIST HD 307.3.2 S2:1998

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

Table with 2 columns: Six Months' Rule, Report on Voting. Row 1: 15C(CO)180, 15C(CO)196

Further information can be found in the Report on Voting indicated in the table above.

The following I E C publication is quoted in this standard:

Publication No. 707 (1981): Methods of Test for the Determination of the Flammability of Solid Electrical Insulating Materials when Exposed to an Igniting Source.

**SPECIFICATION FOR
SOLVENTLESS POLYMERISABLE RESINOUS COMPOUNDS
USED FOR ELECTRICAL INSULATION**

**Part 3: Specifications for individual materials
Sheet 2: Quartz filled epoxy resinous compounds**

INTRODUCTION

This standard is one of the series which deals with solventless polymerisable resinous compounds used for electrical insulation. The series has the following three parts:

Part 1: Definitions and general requirements (I E C Publication 455-1).

Part 2: Methods of test (I E C Publication 455-2).

Part 3: Specifications for individual materials (I E C Publication 455-3).

1. Scope

This Sheet 2 of Part 3 of the standard contains the requirements for quartz filled epoxy resinous compounds in the cured form (Types EP-F-1 to EP-F-6).

2. Requirements

The requirements for quartz filled epoxy resinous compounds in the cured form are given in Table I.

Quartz filled epoxy resinous compounds purporting to comply with this standard shall contain between 45% and 65% by mass of quartz filler.

Note. — Materials for use in low temperature conditions may require additional tests not specified in this sheet to establish their suitability.

3. Special requirements

When any of the following special properties are used in the purchase contract the method of test given below shall be used:

<i>Property</i>	<i>Test method in Part 2</i>
	Clause
Viscosity	4
Ash content	7
Volatile content	11
Epoxy equivalent	12
Shelf-life	14
Pot-life	15
Exothermic temperature peak	17
Curing in thick layers	18
Total shrinkage	20