

**Non-cellulosic papers for electrical purposes - Part 3:
Specifications for individual materials - Sheet 3: Unfilled
aramid (aromatic polyamide) papers**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 60819-3-3:2011 sisaldab Euroopa standardi EN 60819-3-3:2011 ingliskeelset teksti.	This Estonian standard EVS-EN 60819-3-3:2011 consists of the English text of the European standard EN 60819-3-3:2011.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 28.10.2011.	Date of Availability of the European standard is 28.10.2011.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 29.035.10

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Aru 10, 10317 Tallinn, Eesti; www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:
Aru 10, 10317 Tallinn, Estonia; www.evs.ee; phone 605 5050; e-mail info@evs.ee

**Non-cellulosic papers for electrical purposes -
Part 3: Specifications for individual materials -
Sheet 3: Unfilled aramid (aromatic polyamide) papers
(IEC 60819-3-3:2011)**

Papiers non cellulosiques pour usages
électriques -
Partie 3: Spécifications pour matériaux
particuliers -
Feuille 3: Papiers en aramide non chargé
(polyamide aromatique)
(CEI 60819-3-3:2011)

Zellulosefreie Papiere für
elektrotechnische Zwecke -
Teil 3: Bestimmungen für einzelne
Materialien -
Blatt 3: Ungefüllte Aramid-(aromatische
Polyamid-)Papiere
(IEC 60819-3-3:2011)

This European Standard was approved by CENELEC on 2011-10-18. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 15/619/CDV, future edition 3 of IEC 60819-3-3, prepared by IEC TC 15, "Solid electrical insulating materials", was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60819-3-3:2011.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2012-07-18
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2014-10-18

This document supersedes EN 60819-3-3:2006.

EN 60819-3-3:2011 includes the following significant technical changes with respect to EN 60819-3-3:2006:

- normative references change: all the requirements are now determined according the clauses of test methods from EN 60819-2 specific for non cellulosic papers, instead of EN 60554-2:2002 generally valid for cellulosic papers;
- some new, very thin thicknesses, of type 4, calendered paper with lower density for laminating, were added.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 60819-3-3:2011 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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 60819-1	-	Non-cellulosic papers for electrical purposes - Part 1: Definitions and general requirements	EN 60819-1	-
IEC 60819-2	2001	Non-cellulosic papers for electrical purposes - Part 2: Methods of test	EN 60819-2	2001
ISO 186	2002	Paper and board - Sampling to determine average quality	EN ISO 186	2002

INTRODUCTION

This International Standard is one of a series which deals with non-cellulosic papers for electrical purposes.

The series consists of three parts:

- Part 1: Definitions and general requirements (IEC 60819-1).
- Part 2: Methods of test (IEC 60819-2).
- Part 3: Specifications for individual materials (IEC 60819-3).

This standard is one of the sheets comprising Part 3:

Sheet 3: Unfilled aramid (aromatic polyamide) papers

NON-CELLULOSIC PAPERS FOR ELECTRICAL PURPOSES –

Part 3: Specifications for individual materials – Sheet 3: Unfilled aramid (aromatic polyamide) papers

1 Scope

This sheet of IEC 60819-3 specifies requirements for four types of unfilled aramid papers:

- Type 1: calendered paper;
- Type 2: calendered paper, with improved tearing resistance and conformability;
- Type 3: uncalendered paper;
- Type 4: calendered paper, with lower density for laminating.

Materials which conform to this specification meet established levels of performance. However, the selection of material by a user for a specific application should be based on the actual requirements necessary for adequate performance in that application and not based on this specification alone.

SAFETY WARNING: It is the responsibility of the user of the methods contained or referred to in this document to ensure that they are used in a safe manner.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60819-1, *Non-cellulosic papers for electrical purposes – Part 1: Definitions and general requirements*

IEC 60819-2: 2001, *Non-cellulosic papers for electrical purposes – Part 2: Methods of test*

ISO 186:2002, *Paper and board – Sampling to determine average quality*

3 Requirements

Papers shall satisfy the general requirements in IEC 60819-1, and shall in addition comply with the requirements specified in Table 1 of this part. In assessing conformity with the requirements in Table 1, the sampling procedures used shall be in accordance with ISO 186. In all cases, the values given in Table 1 are the central values, with the number of test pieces to be in accordance with the reference test methods.