per gener. Non-cellulosic papers for electrical purposes - Part 1: **Definitions and general requirements** 



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See Eesti standard EVS-EN 60819-1:2012 sisaldab	
Euroopa standardi EN 60819-1:2012 ingliskeelset	consists of the English text of the European standard
teksti.	EN 60819-1:2012.
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.
,	Date of Availability of the European standard is
Euroopa standardi rahvuslikele liikmetele	17.02.2012.
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ICS 29.035.10

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# EUROPEAN STANDARD

## EN 60819-1

# NORME EUROPÉENNE EUROPÄISCHE NORM

February 2012

ICS 29.035.10

Supersedes EN 60819-1:1995 + A1:1996

English version

# Non-cellulosic papers for electrical purposes - Part 1: Definitions and general requirements

(IEC 60819-1:2009)

Papiers non cellulosiques à usages électriques -Partie 1: Définitions et exigences générales (CEI 60819-1:2009) Vliesstoffe auf Kunststofffaserbasis für elektrotechnische Zwecke -Teil 1: Begriffe und allgemeine Anforderungen (IEC 60819-1:2009)

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## 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**

This document (EN 60819-1:2012) consists of the text of IEC 60819-1:2009 prepared by IEC/TC 15 "Solid electrical insulating materials".

The following dates are fixed:

2012-11-14
2015-02-14

This document supersedes EN 60819-1:1995 + A1:1996.

EN 60819-1:2012 includes the following significant technical changes with respect to EN 60819-1:1995:

The list of materials to be used in combination was updated with the addition of new materials made available by progress in technology and described in Subclauses 2.7 and 2.8.

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 60819-1:2009 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

official version, for	Bibliogi	rapny, the following notes	nave to be added for the standards indicated:
IEC 60819-3-1	NOTE	Harmonized as EN 60819-3-1.	
IEC 60819-3-2	NOTE	Harmonized as EN 60819-3-2.	
IEC 60819-3-3	NOTE	Harmonized as EN 60819-3-3.	
IEC 60819-3-4	NOTE	Harmonized as EN 60819-3-4.	
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### **INTRODUCTION**

This International Standard forms an element of a series which deals with non-cellulosic papers for electrical purposes.

The series consists of three parts:

an, of test ( ations for i) 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)

#### NON-CELLULOSIC PAPERS FOR ELECTRICAL PURPOSES -

#### Part 1: Definitions and general requirements

#### 1 Scope

This part of IEC 60819 gives the definitions and general requirements for non-cellulosic papers for electrical purposes.

Materials which conform to this specification meet established levels of performance. However, the selection of a 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 Terms and definitions

For the purpose of this document, the following definitions apply:

#### 2.1

#### aramid (aromatic polyamide) paper

wet-laid, non-woven paper in which the fibres are synthetic aromatic polyamide having at least 85 % of the amide linkage attached directly to two aromatic rings. Aramid paper may contain materials with or without the addition of suitable organic and/or inorganic filler and/or binder materials.

#### 2.2

#### polyethylene paper

wet-laid, non-woven paper made from specially prepared polyethylene (PE) fibres with or without the addition of suitable organic and/or inorganic filler and/or binder materials

#### 2.3

#### polypropylene paper

wet-laid, non-woven paper made from specially prepared polypropylene fibres (PP) with or without the addition of suitable organic and/or inorganic filler and/or binder materials

#### 2.4

#### glass paper

wet-laid, non-woven paper made from glass micro-fibres made with or without the addition of suitable organic and/or inorganic filler and/or binder materials. In cases of poor fibre adhesion, the situation may be remedied by acid treatment to produce a slight gelation which will act as a binder, or by adding an inorganic binder.

#### 2.5

#### ceramic paper

wet-laid, non-woven paper made from ceramic fibres. For examples, alumina-silica paper composed of approximately 51 % alumina ( $Al_2O_3$ ) and 47 % silica ( $SiO_2$ ). Ceramic papers may be modified with or without the addition of suitable organic and/or inorganic filler and/or binder materials.