



**SLOVENSKI STANDARD**  
**SIST EN 61039:2008**

**01-december-2008**

**BUXca Yý U**  
**SIST HD 618 S1:1997**

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Classification of insulating liquids (IEC 61039:2008)

Allgemeine Klassifikation der Isolierflüssigkeiten (IEC 61039:2008)

Classification des liquides isolants (CEI 61039:2008)

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**Ta slovenski standard je istoveten z: ~~SIST EN 61039:2008~~ EN 61039:2008**

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**ICS:**

29.040.10      Izolacijska olja      Insulating oils

**SIST EN 61039:2008**      **en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 61039**

October 2008

ICS 29.040.10

Supersedes HD 618 S1:1992

English version

## **Classification of insulating liquids (IEC 61039:2008)**

Classification des liquides isolants  
(CEI 61039:2008)

Klassifizierung der Isolierflüssigkeiten  
(IEC 61039:2008)

This European Standard was approved by CENELEC on 2008-10-01. 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, Bulgaria, 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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of document 10/741/FDIS, future edition 2 of IEC 61039, prepared by IEC TC 10, Fluids for electrotechnical applications, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61039 on 2008-10-01.

This European Standard supersedes HD 618 S1:1992.

The main change with regard to HD 618 S1:1992 concerns the updating of the classification of insulating liquids, taking into account the largest number possible of substances that have, or may have, possible application in electrical components.

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) 2009-07-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2011-10-01

Annex ZA has been added by CENELEC.

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## iTeh STANDARD PREVIEW Endorsement notice (standards.iteh.ai)

The text of the International Standard IEC 61039:2008 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:

IEC 61100	NOTE	Harmonized as EN 61100:1992 (not modified).
ISO 2719	NOTE	Harmonized as EN ISO 2719:2002 (not modified).

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## 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/TS 60076-14	2004	Power transformers - Part 14: Design and application of liquid-immersed power transformers using high-temperature insulation materials	-	-
IEC 60296	2003	Fluids for electrotechnical applications - Unused mineral insulating oils for transformers and switchgear	EN 60296 + corr. September	2004 2004
IEC 60465	1988	Specification for unused insulating mineral oils for cables with oil ducts	EN 60465	1990
IEC 60836	2005	Specifications for unused silicone insulating liquids for electrotechnical purposes	EN 60836	2005
IEC 60867	1993	Insulating liquids - Specifications for unused liquids based on synthetic aromatic hydrocarbons	EN 60867	1994
IEC 60963	1988	Specification for unused polybutenes	HD 582 S1	1991
IEC 61099	1992	Specification for unused synthetic organic esters for electrical purposes	EN 61099	1992
ISO 1928	1995	Solid mineral fuels - Determination of gross calorific value by the bomb calorimetric method, and calculation of net calorific value	-	-
ISO 2592	2000	Determination of flash and fire points - Cleveland open cup method	EN ISO 2592	2001
ISO 6743-99	2002	Lubricants, industrial oils and related products (class L) - Classification - Part 99: General	-	-
ISO 8681	1986	Petroleum products and lubricants - Method of classification - Definition of classes	-	-
OECD 301	1992	OECD guidelines for the testing of chemicals - Ready Biodegradability	-	-
ASTM D240-02	- <sup>1)</sup>	Standard test method for heat of combustion of liquid hydrocarbon fuels by bomb calorimeter	-	-

<sup>1)</sup> Undated reference.

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IEC 61039

Edition 2.0 2008-07

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

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Classification of insulating liquids

Classification des liquides isolants

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## CLASSIFICATION OF INSULATING LIQUIDS

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 61039 has been prepared by IEC technical committee 10: Fluids for electrotechnical applications.

This second edition cancels and replaces the first edition, published in 1990, and constitutes a technical revision.

The main change with regard to the previous edition concerns the updating of the classification of insulating liquids, taking into account the largest number possible of substances that have, or may have, possible application in electrical components.

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

FDIS	Report on voting
10/741/FDIS	10/747/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 2.