



**SLOVENSKI STANDARD**  
**SIST HD 618 S1:1997**

**01-oktober-1997**

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**General classification of insulating liquids (IEC 1039:1990)**

General classification of insulating liquids

Allgemeine Klassifikation der Isolierflüssigkeiten

Classification générale des isolants liquides

**Ta slovenski standard je istoveten z: HD 618 S1:1992**

[SIST HD 618 S1:1997](https://standards.iteh.ai/catalog/standards/sist/1945193b-7a0a-47aa-a915-2106ba843306/sist-hd-618-s1-1997)

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**ICS:**

29.040.10      Izolacijska olja      Insulating oils

**SIST HD 618 S1:1997**

**en**

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HARMONIZATION DOCUMENT

HD 618 S1

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

October 1992

UDC 621.315.615.001.33

Descriptors: Electrical insulating materials, electrical insulating liquids, classification, designation

## ENGLISH VERSION

General classification of insulating liquids  
(IEC 1039:1990)

Classification générale des  
isolants liquides  
(CEI 1039:1990)

Allgemeine Klassifikation der  
Isolierflüssigkeiten  
(IEC 1039:1990)

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This Harmonization Document was approved by CENELEC on 1992-09-15.  
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

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Ref. No. HD 618 S1:1992 E

### FOREWORD

The CENELEC questionnaire procedure, performed for finding out whether or not the International Standard IEC 1039:1990 could be accepted without textual changes, has shown that no 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 618 S1 on 15 September 1992.

The following dates were fixed:

- latest date of announcement  
of the HD at national level (doa) 1993-03-01
- latest date of publication of  
a harmonized national standard (dop) 1993-09-01
- latest date of withdrawal of  
conflicting national standards (dow) 1993-09-01

Annexes designated "normative" are part of the body of the standard. Annexes designated "informative" are given only for information. In this standard, annex ZA is normative and annex ZB is informative.

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### ENDORSEMENT NOTICE

[https://standards.iteh.ai/catalog/standards/sist/1945193b-7a0a-47aa-a915-](https://standards.iteh.ai/catalog/standards/sist/1945193b-7a0a-47aa-a915-2106ba843306/sist-hd-618-s1-1997)

[2106ba843306/sist-hd-618-s1-1997](https://standards.iteh.ai/catalog/standards/sist/1945193b-7a0a-47aa-a915-2106ba843306/sist-hd-618-s1-1997)

The text of the International Standard IEC 1039:1990 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

## NORMATIVE REFERENCES

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

ISO 8681:1986 - Petroleum products and lubricants - Method of classification  
Definition of classes

ISO 6743-0:1981 - Lubricants, industrial oils and related products (class L)  
Classification - Part 0: General

## ANNEX ZB (informative)

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

## REFERENCES

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

IEC Publication	Date	Title	EN/HD	Date
296	1982	Specification for unused mineral insulating oils for transformers and switchgear	-	-
465	1988	Specification for unused insulating mineral oils for cables with oil ducts	EN 60465	1990
588-3	1977	Askarels for transformers and capacitors Part 3: Specifications for new askarels	-	-
836	1988	Specifications for silicone liquids for electrical purposes	-	-
867	1986	Specifications for unused insulating liquids based on synthetic aromatic hydrocarbons	HD 497 S1	1987
963	1988	Specification for unused polybuthenes	HD 582 S1	1991

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NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD

CEI  
IEC  
1039

Première édition  
First edition  
1990-10

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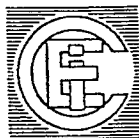
Classification générale des isolants liquides

General classification of insulating liquids

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Numéro de référence  
Reference number  
CEI/IEC 1039: 1990

DESKR: DIELEKTRIKI TEROČI; KLASIFIKACIJA LIKVIDNIH

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## GENERAL CLASSIFICATION OF INSULATING LIQUIDS

## 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.

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This International Standard has been prepared by IEC Technical Committee No. 10: Fluids for electrotechnical applications.

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

Six Months' Rule	Report on Voting
10(CO)254	10(CO)257

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

Annex A is for information only.



## GENERAL CLASSIFICATION OF INSULATING LIQUIDS

### 1 Scope

This International Standard defines the detailed classification of family N (insulating liquids) which belongs to class L (lubricants, industrial oils and related products) in accordance with ISO 8681 and ISO 6743-0.

### 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standard.

ISO 8681: 1986, *Petroleum products and lubricants - Method of classification - Definition of classes.*

ISO 6743-0: 1981, *Lubricants, industrial oils and related products (class L) - Classification - Part 0: General.*

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3 ISO general system of classification [43306/sist-hd-618-s1-1997](https://standards.iteh.ai/catalog/standards/sist/1945193b-7a0a-47aa-a915-43306/sist-hd-618-s1-1997)

ISO 8681 outlines the main rules of the classification system.

3.1 As far as possible, the criterion selected for the establishment of a classification should be the field of application. This criterion was adopted for lubricants (see ISO 6743-0). In certain circumstances, this criterion may not be appropriate; in such cases, a classification may be based on the type of product. This criterion was adopted for fuels, which were classified firstly by type and secondly by end use.

3.2 The principle of this classification is based on assigning a prefix letter which characterizes the main classes of petroleum products.

In this classification system, products are designated in a uniform manner. The complete designation consists of:

- the initials ISO;
- the class of the petroleum product or related product, designated by a letter (see the table in 3.3). This prefix letter shall be clearly separated from the other symbols;