



SLOVENSKI STANDARD SIST EN ISO 13736:2021

01-junij-2021

Nadomešča:
SIST EN ISO 13736:2013

Določevanje plamenišča - Metoda z zaprto posodo po Abelu (ISO 13736:2021)

Determination of flash point - Abel closed-cup method (ISO/ 13736:2021)

Bestimmung des Flammpunktes - Verfahren mit geschlossenem Tiegel nach Abel (ISO/ 13736:2021)

iTeh STANDARD PREVIEW

Détermination du point d'éclair - Méthode Abel en vase clos (ISO/ 13736:2021)

Ta slovenski standard je istoveten z: **EN ISO 13736:2021**

<https://standards.iteh.ai/catalog/standards/sist/ed919ca0-62d9-45b0-80f4-b31b0118a430/sist-en-iso-13736-2021>

ICS:

75.080 Naftni proizvodi na splošno Petroleum products in general

SIST EN ISO 13736:2021

en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 13736:2021](#)

<https://standards.iteh.ai/catalog/standards/sist/ed9919da-62d9-45b0-80f4-b31b0118a430/sist-en-iso-13736-2021>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 13736

April 2021

ICS 75.080

Supersedes EN ISO 13736:2013

English Version

Determination of flash point - Abel closed-cup method (ISO 13736:2021)

Détermination du point d'éclair - Méthode Abel en vase
clos (ISO 13736:2021)

Bestimmung des Flammpunktes - Verfahren mit
geschlossenem Tiegel nach Abel (ISO 13736:2021)

This European Standard was approved by CEN on 23 March 2021.

CEN 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 CEN 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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

<https://standards.iteh.ai/catalog/standards/sist/ed9919da-62d9-45b0-80f4-b31b0118a430/sist-en-iso-13736-2021>



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword.....	3

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 13736:2021](https://standards.iteh.ai/catalog/standards/sist/ed9919da-62d9-45b0-80f4-b31b0118a430/sist-en-iso-13736-2021)
<https://standards.iteh.ai/catalog/standards/sist/ed9919da-62d9-45b0-80f4-b31b0118a430/sist-en-iso-13736-2021>

European foreword

This document (EN ISO 13736:2021) has been prepared by Technical Committee ISO/TC 28 "Petroleum and related products, fuels and lubricants from natural or synthetic sources" in collaboration with Technical Committee CEN/TC 19 "Gaseous and liquid fuels, lubricants and related products of petroleum, synthetic and biological origin." the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2021, and conflicting national standards shall be withdrawn at the latest by October 2021.

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

This document supersedes EN ISO 13736:2013.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

iTeh STANDARD PREVIEW

(standards.iteh.ai)

Endorsement notice

The text of ISO 13736:2021 has been approved by CEN as EN ISO 13736:2021 without any modification.

SIST EN ISO 13736:2021
<https://standards.iteh.ai/catalog/standards/sist/ed9919da-62d9-45b0-8014-b31b0118a430/sist-en-iso-13736-2021>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 13736:2021](#)

<https://standards.iteh.ai/catalog/standards/sist/ed9919da-62d9-45b0-80f4-b31b0118a430/sist-en-iso-13736-2021>

INTERNATIONAL
STANDARD

ISO
13736

Fourth edition
2021-03

**Determination of flash point — Abel
closed-cup method**

Détermination du point d'éclair — Méthode Abel en vase clos

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 13736:2021](https://standards.iteh.ai/catalog/standards/sist/ed9919da-62d9-45b0-80f4-b31b0118a430/sist-en-iso-13736-2021)

<https://standards.iteh.ai/catalog/standards/sist/ed9919da-62d9-45b0-80f4-b31b0118a430/sist-en-iso-13736-2021>



Reference number
ISO 13736:2021(E)

© ISO 2021

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 13736:2021](https://standards.iteh.ai/catalog/standards/sist/ed9919da-62d9-45b0-80f4-b31b0118a430/sist-en-iso-13736-2021)

<https://standards.iteh.ai/catalog/standards/sist/ed9919da-62d9-45b0-80f4-b31b0118a430/sist-en-iso-13736-2021>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	2
5 Chemicals and materials	2
6 Apparatus	2
7 Apparatus preparation	3
7.1 Location of the apparatus.....	3
7.2 Cleaning the test cup.....	3
7.3 Apparatus examination.....	3
7.4 Heating and cooling.....	3
7.4.1 Liquid baths.....	3
7.4.2 Solid metal baths.....	3
7.4.3 Test cup and cover.....	3
7.5 Apparatus verification.....	4
8 Sampling	4
9 Sampling handling	5
9.1 General.....	5
9.2 Subsampling.....	5
9.3 Samples containing undissolved water.....	5
9.4 Sample mixing.....	5
10 Procedure	5
11 Calculation	6
12 Expression of results	7
13 Precision	7
13.1 General.....	7
13.2 Repeatability, r	7
13.3 Reproducibility, R	8
14 Test report	8
Annex A (normative) Abel flash point apparatus	9
Annex B (normative) Positioning and fixing of test cup and heating vessel thermometers into thermometer collar	16
Annex C (normative) Temperature measuring device specifications	18
Annex D (normative) Apparatus verification	20
Annex E (informative) Flash point values of chemicals	23
Bibliography	24

ISO 13736:2021(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 28, *Petroleum products and lubricants*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 19, *Gaseous and liquid fuels, lubricants and related products of petroleum, synthetic and biological origin* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO 13736:2013), which has been technically revised.

The main changes compared to the previous edition are as follows:

- the [Subclause 7.5](#) has been further elaborated;
- under [13.2](#) and [13.3](#), the precision definitions have been updated in line with ISO 4259-1[3];
- in [Annex C](#) the digital contact thermometers have been introduced and furthermore explanation on the generic liquid-in-glass thermometers has been introduced;
- [Annex D](#) has been revised (especially the evaluation subclause) and changed to normative status;
- a new [Annex E](#) on flash point values of chemicals has been introduced.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Flash point values are used in shipping, storage, handling and safety regulations, as a classification property to define “flammable” and “combustible” materials. Precise definition of the classes is given in each particular regulation.

A flash point value can indicate the presence of highly volatile material(s) in a relatively non-volatile or non-flammable material, and flash point testing can be a preliminary step to other investigations into the composition of unknown materials.

Flash point determinations are not appropriate for potentially unstable, decomposable, or explosive materials, unless previously established that heating the specified quantity of such materials in contact with the metallic components of the flash point apparatus, within the temperature range required for the method, does not induce decomposition, explosion or other adverse effects.

Flash point values are not a constant physical-chemical property of materials tested. They are a function of the apparatus design, the condition of the apparatus used, and the operational procedure carried out. Flash point can therefore be defined only in terms of a standard test method, and no general valid correlation can be guaranteed between results obtained by different test methods or with test apparatus different from that specified.

ISO/TR 29662^[Z] gives useful advice on carrying out flash point tests and interpreting results.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 13736:2021](https://standards.iteh.ai/catalog/standards/sist/ed9919da-62d9-45b0-80f4-b31b0118a430/sist-en-iso-13736-2021)

<https://standards.iteh.ai/catalog/standards/sist/ed9919da-62d9-45b0-80f4-b31b0118a430/sist-en-iso-13736-2021>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 13736:2021](#)

<https://standards.iteh.ai/catalog/standards/sist/ed9919da-62d9-45b0-80f4-b31b0118a430/sist-en-iso-13736-2021>