SLOVENSKI STANDARD
oSIST prEN ISO 14935:2019

01-maj-2019

Naftni in sorodni proizvodi - Določevanje trajanja gorenja stenja v ognjeodporni tekočini (ISO/DIS 14935:2019)

Petroleum and related products - Determination of wick flame persistence of fire-resistant fluids (ISO/DIS 14935:2019)

Mineralölerzeugnisse und verwandte Produkte - Bestimmung der Nachbrennzeit schwer entflammbarer Flüssigkeiten an einem Docht (ISO/DIS 14935:2019)

Pétrole et produits connexes - Détermination de la persistance d'une flamme sur une mèche trempée dans un fluide difficilement inflammable (ISO/DIS 14935:2019)

Ta slovenski standard je istoveten z: **prEN ISO 14935**

ICS:

75.080	Naftni proizvodi na splošno	Petroleum products in general

oSIST prEN ISO 14935:2019 **en,fr,de**

DRAFT INTERNATIONAL STANDARD

ISO/DIS 14935

ISO/TC **28**

Secretariat: **NEN**

Voting begins on:
2019-03-07

Voting terminates on:
2019-05-30

Petroleum and related products — Determination of wick flame persistence of fire-resistant fluids

Pétrole et produits connexes — Détermination de la persistance d'une flamme sur une mèche trempée dans un fluide difficilement inflammable

ICS: 75.080

This document is circulated as received from the committee secretariat.

ISO/CEN PARALLEL PROCESSING

Reference number
ISO/DIS 14935:2019(E)

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Published in Switzerland

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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 on 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 28, *Petroleum products and related products of synthetic or biological origin.*

This second edition cancels and replaces the first edition (ISO 14935:1998), which has been technically revised.

The main changes compared to the previous edition is to re-define the procedure at three points. A detailed definition is required to get better repeatable and reproducible values. When the data of the after flame time are to be measured with an accuracy of ± 0,1 s, failures caused by the adjustment are now avoided by tolerance adjustments on the burner nozzle, the dropping time and the temperature of the oil.

Introduction

This document was originally developed by CEN under a Mandate from the European Commission.

This document determines flame persistence. This test does not ascertain the behaviour of a spray of fire-resistant fluid, for which ISO 15029, Parts 1 or 2,[2,3] are recommended.

Petroleum and related products — Determination of wick flame persistence of fire-resistant fluids

WARNING — The use of this document may involve hazardous materials, operations and equipment. This document does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this document to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

1 Scope

This document specifies a method for the assessment of the persistence of a flame applied to the edge of a wick of non-flammable material immersed in fire-resistant fluid. The test relates to the bulk behaviour of a fluid, which may provide pertinent information for safe transportation and storage.

This test does not determine the behaviour of a spray of fire-resistant fluid (see Introduction).

This document establishes one of two basic measures of fire-resistance, and may be called up in regulations governing the use of fire resistant hydraulic fluids under ISO 12922 [1].

This document does not apply to certain water-containing fluids or emulsions that do not adhere to the test board.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 3170:2004, *Petroleum liquids — Manual sampling*

ISO 9162:2013, *Petroleum products — Fuels (class F) — Liquefied petroleum gases — Specifications*

3 Terms and definitions

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

For the purposes of this document, the following terms and definitions apply.

3.1
flame mean persistence
largest average flame persistence time, in seconds, of five flame exposures carried out under the conditions specified in this International Standard, each flame exposure being the average of six determinations

4 Principle

A length of non-flammable aluminosilicate board is soaked in the fluid being tested and placed in a reservoir of the fluid with one edge exposed. A small flame is applied to the exposed edge of the board, and the persistence, in seconds, of the flame after removal of the igniting flame is measured. A total of six determinations is carried out for each of five different periods of flame application. The persistence

of these five different periods of application of the igniting flame are calculated, and the result is the largest of these averages.

5 Reagents and Materials

5.1 Propane, of commercial quality conforming to ISO 9162.

5.2 Cleaning materials, for cleaning the reservoir, consisting of solvents appropriate to the material being tested.

6 Apparatus

6.1 Reservoir, constructed of suitable metal, approximately 200 mm in length, 25 mm in width and 20 mm in depth. It shall be fitted with clips or clamping devices to hold the board (6.5) at either end, with a distance between the inner edges of these clips of 180 mm ± 2 mm. Each clip or clamp shall have a reference mark at 30 mm ± 0,5 mm above the inside bottom of the reservoir. Figure 1 illustrates a suitable reservoir.

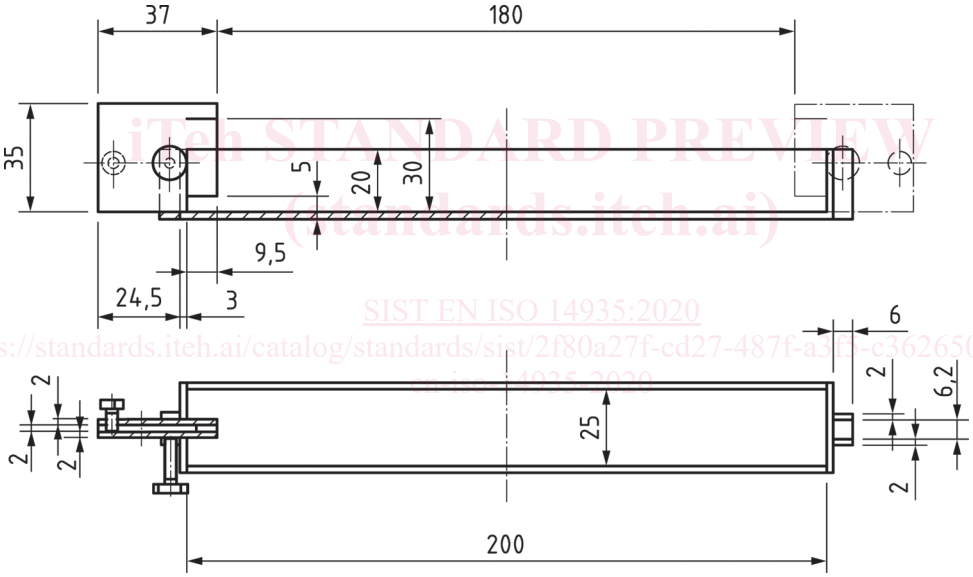

Figure 1 — Reservoir

6.2 Burner, fitted with a nozzle of 0,6 mm diameter as illustrated in Figure 2.

NOTE 1 A British Oxygen Company No. 1 welding nozzle is an example of a suitable product available commercially. This information is given for the convenience of users of this International Standard and does not constitute an endorsement by ISO of this product.

NOTE 2 The burner may be fabricated from a length of tube, one end of which is threaded to accommodate the nozzle, and the other end of which is threaded to take the connector on the propane supply tube (6.3).