BS EN ISO 3016:2019



BSI Standards Publication

Petroleum and related products from natural or synthetic sources - Determination of pour point

National foreword

This British Standard is the UK implementation of EN ISO 3016:2019. It is identical to ISO 3016:2019.

The UK participation in its preparation was entrusted to Technical Committee PTI/13, Petroleum Testing and Terminology.

A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

Petroleum and related products from natural or synthetic sources - Determination of pour point (ISO 3016:2019)

Produits pétroliers et connexes d'origine naturelle ou synthétique - Détermination du point d'écoulement(ISO 3016:2019)

Mineralölerzeugnisse und verwandte Produkte mit natürlichem oder synthetischem Ursprung - Bestimmung des Pourpoints (ISO 3016:2019)

This European Standard was approved by CEN on 23 March 2019.

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European foreword

This document (EN ISO 3016:2019) 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of an identical text or by endorsement, at the latest by November 2019, and conflicting national standards shall be withdrawn at the latest by November 2019.

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.

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Endorsement notice

The text of ISO 3016:2019 has been approved by CEN as EN ISO 3016:2019 without any modification.

Contents

Page

Foreword ... **iv**
1 Scope ... **1**
2 Normative references ... **1**
3 Terms and definitions ... **1**
4 Principle ... **2**
5 Apparatus ... **2**
6 Sampling ... **3**
7 Procedure ... **4**
8 Expression of results ... **6**
9 Precision ... **6**
9.1 General ... 6
9.2 Lubricating oils ... 6
9.2.1 General ... 6
9.2.2 Repeatability ... 6
9.2.3 Reproducibility ... 6
9.3 Middle distillate and residual fuels ... 6
9.3.1 General ... 6
9.3.2 Repeatability ... 7
9.3.3 Reproducibility ... 7
10 Test report ... **7**
Annex A (normative) **Specifications of temperature measuring devices** ... **8**
Annex B (informative) **Commonly used chemicals and freezing mixtures** ... **10**
Annex C (informative) **Actual derived precision values** ... **11**
Bibliography ... **12**

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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).

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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 and related products, fuels and lubricants from natural or synthetic sources*.

This third edition cancels and replaces the second edition (ISO 3016:1994), which has been technically revised. The main changes compared to the previous edition are as follows:

— inclusion of digital contact thermometer in 5.2.1;

— update of normative references in Clause 2;

— chemicals and mixtures moved from former Clause 4 to Annex B (alignment with ISO 3015[1]);

— bath and sample temperature ranges have been aligned with ASTM D97[2], changes in bath temperature and the temperatures at which the test jars are moved to the batch with the next lower temperature have over the years (1994 up to the time of publication of this document) not led to observation of a bias versus test results obtained with the former edition;

— option for using automatic apparatus has been removed as being non-applicable;

— automated apparatus no longer being addressed as its use is at the discretion of the laboratory and the precision does not apply to that equipment;

— addition of sampling instructions in Clause 6;

— alignment of Clause 9 on precision, with ASTM D97[2] and introduction of Annex C;

— addition of a Bibliography.

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.

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INTERNATIONAL STANDARD **ISO 3016:2019**

Petroleum and related products from natural or synthetic sources - Determination of pour point

WARNING — The use of this document can 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 users of this document to take appropriate measures to ensure the safety and health of personnel prior to the application of this document, and to determine the applicability of any other restrictions.

1 Scope

This document specifies a method for the determination of the pour point of petroleum products. A separate procedure suitable for the determination of the lower pour point of fuel oils, heavy lubricant base stock, and products containing residual fuel components is also described.

The procedure described in this document is not suitable for crude oils.

NOTE There is equipment available that uses an automated procedure similar to the one described in this document. However, the precision thereof has not been established[1)].

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, *Petroleum liquids — Manual sampling*

ISO 3171, *Petroleum liquids — Automatic pipeline sampling*

ASTM D7962, *Practice for Determination of Minimum Immersion Depth and Assessment of Temperature Sensor Measurement Drift*

ASTM E2877, *Guide for Digital Contact Thermometers*

3 Terms and definitions

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

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

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

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

3.1
pour point
lowest temperature at which a sample of petroleum product will continue to flow when it is cooled under specified standard conditions

1) ISO develops an automated test method standard.

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