

Methods of test for petroleum and its products — BS 2000-523: Determination of flash point — Rapid equilibrium closed cup method

(Identical with IP 523-2005)

The European Standard EN ISO 3679:2004 has the status of a British Standard

ICS 75.080; 87.040

National foreword

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The UK participation in its preparation was entrusted to Technical Committee PTI/13, Petroleum testing and terminology, which has the responsibility to:

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Summary of pages

This document comprises a front cover, an inside front cover, the EN ISO title page, the EN ISO foreword page, the ISO title page, pages ii to v, a blank page, pages 1 to 18, an inside back cover and a back cover.

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Determination of flash point - Rapid equilibrium closed cup
method (ISO 3679:2004)

Détermination du point d'éclair - Méthode rapide à
l'équilibre en vase clos (ISO 3679:2004)

Bestimmung des Flammpunktes - Schnelles
Gleichgewichtsverfahren mit geschlossenem Tiegel (ISO
3679:2004)

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Foreword

This document (EN ISO 3679:2004) has been prepared by Technical Committee ISO/TC 28 "Petroleum products and lubricants" in collaboration with Technical Committee CEN/TC 19 "Petroleum products, lubricants and related products", 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of an identical text or by endorsement, at the latest by October 2004, and conflicting national standards shall be withdrawn at the latest by October 2004.

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

Endorsement notice

The text of ISO 3679:2004 has been approved by CEN as EN ISO 3679:2004 without any modifications.

INTERNATIONAL STANDARD

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Determination of flash point — Rapid equilibrium closed cup method

*Détermination du point d'éclair — Méthode rapide à l'équilibre en vase
clos*



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 3679 was prepared jointly by Technical Committees ISO/TC 28, *Petroleum products and lubricants* and ISO/TC 35, *Paints and varnishes*.

This third edition cancels and replaces the second edition (ISO 3679:1983), which has been technically revised.

Introduction

This International Standard describes one of two closed cup equilibrium methods for the determination of the flash point of paints, varnishes, paint binders, solvents, adhesives, petroleum and related products. When selecting a method, it should therefore be read in conjunction with the second method, ISO 1523 [4]. When used in conjunction with the flash detector (A.1.6), this International Standard is also suitable for the determination of the flash point of fatty acid methyl esters (FAME).

In both ISO 3679 and ISO 1523, the test is only carried out when the material under test and the air/vapour mixture above the material in the test cup are approximately in temperature equilibrium.

The apparatus specified in this International Standard enables a similar test result to be determined using a more rapid procedure and a smaller test portion (2 ml or 4 ml) than that required in ISO 1523. In addition, the apparatus can be made portable to the extent of being suitable for on-site testing in addition to its more normal use in laboratories.

Collaborative work (see [6] in the Bibliography) has shown that results obtained by these procedures are comparable. The interpretation of flash point results obtained on solvent mixtures containing halogenated hydrocarbons should be considered with caution, as these mixtures can give anomalous results (see [7] in the Bibliography).

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 only be defined 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.