

INTERNATIONAL
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ISO
3105

Second edition
1994-12-01

Glass capillary kinematic viscometers — Specifications and operating instructions

*Viscosimètres à capillaire, en verre, pour viscosité cinématique —
Spécifications et mode d'emploi*



Reference number
ISO 3105:1994(E)

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International Organization for Standardization
Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed 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.

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.

International Standard ISO 3105 was prepared by Technical Committee ISO/TC 28, *Petroleum products and lubricants*.

This second edition cancels and replaces the first edition (ISO 3105:1976, corrected and reprinted 1984), which has been technically revised.

Annexes A, B and C form an integral part of this International Standard.

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

1 Scope

This International Standard gives specifications and operating instructions for glass capillary viscometers widely used for the determination of kinematic viscosity of petroleum products by the procedure described in ISO 3104. The calibration of these viscometers is also described.

The types of viscometers described are modified Ostwald viscometers (annex A), suspended-level viscometers (annex B) and reverse-flow viscometers (annex C). Other viscometers of the glass capillary type which are capable of measuring kinematic viscosity within the limits of precision given in ISO 3104 may be used.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was 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 edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3104:1994, *Petroleum products — Transparent and opaque liquids — Determination of kinematic viscosity and calculation of dynamic viscosity.*

3 Symbols for viscometer parts

Letters are used to designate specific parts of each viscometer described in the annexes. These letters are also used in the text of this International Standard when reference to the viscometers is given. The more frequently used letters on the figures in the annexes are as follows:

A	Lower reservoir
B	Suspended level bulb
C and J	Timing bulbs
D	Upper reservoir
E, F and I	Timing marks
G and H	Filling marks
K	Overflow tube
L	Mounting tube
M	Lower vent tube
N	Upper vent tube
P	Connecting tube
R	Working capillary