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Petroleum products — Determination of cloud point

Produits pétroliers — Détermination du point de trouble



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Foreword

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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 3015 was prepared by Technical Committee ISO/TC 28, *Petroleum products and lubricants*.

This second edition cancels and replaces the first edition (ISO 3015:1974), of which it constitutes a technical revision.

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Petroleum products — Determination of cloud point

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

1 Scope

This International Standard specifies a method for the determination of the cloud point of petroleum products which are transparent in layers 40 mm in thickness and have a cloud point below 49 °C.

2 Definition

For the purposes of this International Standard, the following definition applies.

2.1 cloud point: The temperature at which a cloud of wax crystals first appears in a liquid when it is cooled under specified conditions.

3 Principle

A sample is cooled at a specified rate and examined periodically. The temperature at which a cloud is first observed at the bottom of the test jar is recorded as the cloud point.

4 Apparatus (see figure 1)

4.1 Test jar, cylindrical, of clear glass, flat-bottomed, 33,2 mm to 34,8 mm in outside diameter and 115 mm to 125 mm in height.

The inside diameter of the jar may range from 30 mm to 32,4 mm, within the constraint that the wall thickness be no greater than 1,6 mm. The jar shall be marked with a line to indicate a sample height 54 mm \pm 3 mm above the inside bottom.

4.2 Thermometers, partial-immersion type, conforming to the specifications in table 1.

4.3 Cork, to fit the test jar, bored centrally to take the test thermometer.

4.4 Jacket, watertight, cylindrical, metal, flat-bottomed, about 115 mm in depth, with an inside diameter of 44,2 mm to 45,8 mm. It shall be supported in a vertical position in a cooling bath (4.7) so that not more than 25 mm projects out of the cooling medium, and it shall be capable of being cleaned.

4.5 Disc, of cork or felt, 6 mm in thickness, to fit loosely inside the jacket.

4.6 Gasket, ring form, about 5 mm in thickness, to fit snugly on the outside of the test jar and loosely inside the jacket.

This gasket may be made of rubber, leather or other suitable material, elastic enough to cling to the test jar and hard enough to hold its shape. The purpose of the ring gasket is to prevent the test jar from touching the jacket.