

INTERNATIONAL STANDARD

ISO
10307-1

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Petroleum products — Total sediment in residual fuel oils —

Part 1:

Determination by hot filtration

*Produits pétroliers — Insolubles existants dans les fuel-oils résiduels —
Partie 1: Détermination par filtration à chaud*



Reference number
ISO 10307-1:1993(E)

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 10307-1 was prepared by Technical Committee ISO/TC 28, *Petroleum products and lubricants*.

ISO 10307 consists of the following parts, under the general title *Petroleum products — Total sediment in residual fuel oils*:

- Part 1: *Determination by hot filtration*
- Part 2: *Determination using standard procedures for ageing*

Petroleum products — Total sediment in residual fuel oils —

Part 1:

Determination by hot filtration

WARNING — The use of this International Standard may involve hazardous materials, operations and equipment. The 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 part of ISO 10307 specifies a method for the determination of total sediment in residual fuel oils having a maximum viscosity of $55 \text{ mm}^2/\text{s}$ at 100°C , and for blends of distillate fuels containing residual components. The maximum total sediment covered by the precision evaluations of this method is 0,50 % (m/m) for residual fuels, and 0,40 % (m/m) for distillate fuels containing residual components. Some fuels may exceed the maximum filtration time specified in this method due to factors other than the presence of significant quantities of insoluble organic or inorganic material.

Sediment insoluble in toluene may be determined by ISO 3735.

NOTES

1 The method described in this part of ISO 10307 may be used for the assessment of total sediment after regimes of fuel pre-treatment designed to accelerate the ageing process (see part 2 of this International Standard).

2 Appreciable amounts of sediment in a residual fuel oil can cause fouling of facilities for handling, and give problems in burner mechanisms. Sediment may accumulate in storage tanks, on filter screens or on burner parts, resulting in obstruction to flow of oil from the tank to the burner.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 10307. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 10307 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3735:1975, *Crude petroleum and fuel oils — Determination of sediment — Extraction method*.

ISO 6353-2:1983, *Reagents for chemical analysis — Part 2: Specifications — First series*.

ISO 6353-3:1987, *Reagents for chemical analysis — Part 3: Specifications — Second series*.

3 Definition

For the purposes of this part of ISO 10307, the following definition applies.

3.1 total sediment: The sum of the insoluble organic and inorganic material which is separated from the bulk of the sample by filtration through a specified filter, and which is also insoluble in a predominantly paraffinic solvent.