
**Petroleum products — Determination of
thermal oxidation stability of gas turbine
fuels — JFTOT method**

*Produits pétroliers — Détermination de la stabilité à l'oxydation thermique
des carburéacteurs — Méthode JFTOT*



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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 3.

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 6249 was prepared by ISO/TC 28, *Petroleum products and lubricants*.

This second edition cancels and replaces the first edition (ISO 6249:1984), of which it constitutes a technical revision.

Annexes A and B form a normative part of this International Standard. Annex C is for information only.

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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 specifies a procedure for rating the tendencies of gas turbine fuels to deposit decomposition products within the fuel system. It is applicable to middle distillate and wide-cut fuels, and is particularly specified for the performance of aviation gas turbine fuels.

The test results are indicative of fuel stability during gas turbine operation and can be used to assess the level of deposits that form when liquid fuel contacts a heated surface at a specified temperature.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative references indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 3170:1988, *Petroleum liquids — Manual sampling*.

ISO 3170:1988/Amd. 1:1998.

ISO 3171:1988, *Petroleum liquids — Automatic pipeline sampling*.

3 Terms and definitions

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

3.1

heater tube

aluminium tube controlled at an elevated temperature, over which the test fuel is pumped; the tube is resistively heated and temperature controlled by a thermocouple positioned inside it

NOTE The critical test area is the 60 mm thinner portion between the shoulders of the tube. The fuel inlet to the tube is at the 0 mm position, and the fuel exit is at 60 mm.

3.2

decomposition product

oxidative product laid down on the heater tube in a relatively small area of the thinner portion of the tube, typically between the 30 mm and 50 mm position from the fuel inlet, and that trapped in the test filter