
**Petroleum products — Gum content of
fuels — Jet evaporation method**

*Produits pétroliers — Teneur en gommes des carburants — Méthode
d'évaporation au jet*

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by ISO/TC 28, *Petroleum products and related products of synthetic or biological origin*.

This third edition cancels and replaces the second edition (ISO 6246:1995), which has been technically revised and aligned with ASTM D381^[1].

It also incorporates the Technical Corrigendum ISO 6246:1995/Cor 1:1998.

The changes incorporate modern methods for temperature measurement and clarification of various measurement limits. Some process steps on the rounding of results are added. The precision in the former edition was based on very old data using samples that did not contain components found in modern gasoline, such as oxygenated compounds and deposit control additives. New precision estimates from a 1997 joint ASTM/EI study^[3] are included. Unwashed and washed gum results for non-aviation fuels can now be expressed to the nearest 0,5 mg/100 ml. This study and additional work in ASTM^[4] and CEN in 2014^[5] have led to broadening of the scope to modern gasoline (blends).

Introduction

The true significance of this test method for determining gum in motor gasoline is not firmly established. It has been proven that high gum content can cause induction-system deposits and sticking of intake valves, and in most cases, it can be assumed that low gum content will ensure absence of induction-system difficulties. The user should, however, realize that the test is not of itself correlative to induction-system deposits.

The primary purpose of the test, as applied to motor gasoline, is the measurement of the oxidation products formed in the sample prior to or during the comparatively mild conditions of the test procedure. Since many kinds of motor gasoline are purposely blended with non-volatile oils or additives, the heptane extraction step is necessary to remove these from the evaporation residue so that the deleterious material, gum, can be determined. With respect to aviation turbine fuels, large quantities of gum are indicative of contamination of fuel by higher boiling oils or particulate matter and generally reflect poor handling practices in distribution downstream of the refinery.

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