PD ISO/TR 19686-1:2014



BSI Standards Publication

Petroleum products — Equivalency of test method determining the same property

Part 1: Atmospheric distillation of petroleum products

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National foreword

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The UK participation in its preparation was entrusted to Technical Committee PTI/13, Petroleum Testing and Terminology.

A list of organizations represented on this committee can be obtained on request to its secretary.

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ISBN 978 0 580 85784 3

ICS 75.080

Compliance with a British Standard cannot confer immunity from legal obligations.

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 31 December 2014.

Amendments issued since publication

Date	Text affected

PD ISO/TR 19686-1:2014

TECHNICAL REPORT

ISO/TR 19686-1

First edition
2014-09-15

Petroleum products — Equivalency of test method determining the same property —

Part 1: Atmospheric distillation of petroleum products

Produits pétroliers — Équivalence des méthodes d'essai déterminant la même propriété —

Partie 1: Distillation atmosphérique de produits pétroliers

Reference number
ISO/TR 19686-1:2014(E)

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Published 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.

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 28, *Petroleum products and lubricants*.

ISO/TR 19686 consists of the following parts, under the general title *Petroleum products — Equivalency of test methods determining the same property*:

— *Part 1: Atmospheric distillation of petroleum products*

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Introduction

At the 2010 ISO/TC 28 plenary meeting in Porto, ISO/TC 28 established a working group to investigate the development of test method equivalency tables. Motivation for this proposal was the discussion about identities, equivalences or differences of test methods related to fuels. It was concluded that a more structured approach would be useful.

As the task of determining equivalency appeared to be a difficult and complex one, it was decided to take into account each property one after the other. The WG started with distillation. Follow up is to continue with the review of other methods that are intended to be presented in other parts of this Technical Report.

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TECHNICAL REPORT **ISO/TR 19686-1:2014(E)**

Petroleum products — Equivalency of test method determining the same property —

Part 1: Atmospheric distillation of petroleum products

1 Scope

This Technical Report describes the evaluation executed by ISO in order to determine the equivalency of test methods used on a global scale in quality specifications of petroleum products, lubricants, and fuels. This part of ISO/TR 19686 focuses on whether the standardized test methods for determining atmospheric distillation characteristics are to be considered technically equivalent. This is to guide laboratories that use one standard and wish to know if they can also certify product towards the others.

2 Comparison

2.1 Reasons for divergence

When compared test methods have the same "root", i.e. can be traced back to the same base document(s), then at the time of first publication, these methods can be designated "identical". Over time, however, both methods would undergo independent revision rather, therefore the designation "identical" will slowly move towards "equivalent" or even to "different".

2.2 What does equivalency mean

The designations "identical, equivalent or different" can be factored into a set of important analytical parameters which do affect applicability, results and precision as follows:

a) test method scope (applicability to specific product groups);

b) test method scope (measurement ranges);

c) interferences (matrix effects/disturbances);

d) test equipment/apparatus;

e) procedural items (internal/external standard, calibration, sample preparation, etc);

f) precision, RRT information.

Any comparison of test methods should give comprehensive answers to the above mentioned issues. Several approaches to these "identity questions" sometimes reduce the above findings to categories such as:

— identical: same technical scope, procedures, results, and precision, only editorial differences due to different editorial styles;

— equivalent: some differences introduced in technical aspects such as updated precision, extension of scope or range, etc.;

— different: introduction of significant technical changes such as new equipment, different calibration, or calculations, has changed the test result or the way the test result can be used.

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