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Fuel oils — Agricultural, domestic, commercial and industrial fixed combustion applications — Specification

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Contents

Summary of pages
This document comprises a front cover, an inside front cover, pages I to IV, pages 1 to 26, an inside back cover and a back cover.

Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 July 2023. It was prepared by Technical Committee PTI/2, *Liquid fuels*. A list of organizations represented on this committee can be obtained on request to the committee manager.

Supersession

This British Standard supersedes BS 2869:2017+A1:2022, which is withdrawn.

Information about this document

This is a full revision of the document, and introduces the following principal changes:

- class A2 – Automotive distillate fuel for non-road mobile machinery has been deleted/ discontinued (see BS EN 590);
- a new grade I has been added for industrial furnace oil, which is class C2 kerosene typically blended with waste oils;
- the standard has been brought into line with the latest edition of BS EN 590, in particular the particle contamination in class D has been fully incorporated (see BS EN 590:2022);
- class C2 – kerosene: after kerosene the maximum density has been reduced and a maximum net specific energy has been added;
- class D – middle distillate fuel: after fuel a maximum density requirement has been added. Cetane requirements have been deleted as this fuel is no longer to be used in internal combustion engines;
- Annex B includes information on actual values for the specific energy of all the grades of fuel listed.

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Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is "shall".

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Where words have alternative spellings, the preferred spelling of the *Shorter Oxford English Dictionary* is used (e.g. "organization" rather than "organisation").

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1 Scope

This British Standard specifies requirements for eight classes of fuel oils for agricultural, domestic, commercial and industrial fixed combustion applications.

This British Standard does not apply to fuels for use in internal combustion engines in on-road and non-road mobile and stationary applications, which are covered in BS EN 590. This British Standard does not cover special applications, which are the subject of agreements between the supplier and purchaser of fuel oils.

NOTE 1 Annex A and Annex B provide information on storage, handling and properties of fuels. Additional information on storage and handling is given in BS 6380, PD CEN/TR 15367-1, PD CEN/TR 15367-3 and PD CEN/TR 17548.

This British Standard is aimed at those who bring to market liquid fuels for fixed combustion applications, such as fuel producers, importers and blenders.

NOTE 2 There are some applications for which, for technical or other reasons, limits are different to those in this British Standard or additional requirements might be necessary.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes provisions, or limits the application, of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ASTM D56, *Standard test method for flash point by tag closed cup tester*

ASTM D664, *Standard test method for acid number of petroleum products by potentiometric titration*

ASTM D3338, *Standard test method for estimation of net heat of combustion of aviation fuels*

ASTM D3828, *Standard test methods for flash point by small scale closed cup tester*

BS 2000-10, *Methods of test for petroleum and its products – Part 10: Determination of kerosine burning characteristics – 24 hour method*

BS 2000-12, *Methods of test for petroleum and its products – Part 12: Determination of specific energy*

BS 2000-74 (ISO 3733), *Methods of test for petroleum and its products – Part 74: Petroleum products and bituminous materials – Determination of water – Distillation method*

BS EN 116 (BS 2000-309), *Diesel and domestic heating fuels – Determination of cold filter plugging point – Stepwise cooling bath method*

BS EN 12662 (BS 2000-440), *Liquid petroleum products – Determination of total contamination in middle distillates, diesel fuels and fatty acid methyl esters*

BS EN 14078 (BS 2000-579), *Liquid petroleum products – Determination of fatty methyl ester (FAME) content in middle distillates – Infrared spectrometry method*

BS EN 14214, *Liquid petroleum products – Fatty acid methyl esters (FAME) for use in diesel engines and heating applications – Requirements and test methods*

BS EN 14275 (BS 2000-509), *Automotive fuels – Assessment of petrol and diesel fuel quality – Sampling from retail site pumps and commercial site fuel dispensers*

BS EN 15751 (BS 2000-574), *Automotive fuels – Fatty acid methyl ester (FAME) fuel and blends with diesel fuel – Determination of oxidation stability by accelerated oxidation method*

[1] Documents that are referred to solely in an informative manner are listed in the Bibliography.

