

Specification for

Unleaded petrol (gasoline) for motor vehicles

The European Standard EN 228:1993 has the status of a
British Standard

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted to Technical Committee PTI/2, Liquid fuels, upon which the following bodies were represented:

- Association of United Kingdom Oil Independants
- Automobile Association
- Bus and Coach Council
- Chemical Industries' Association
- Consumer Policy Committee of BSI
- Department of Trade and Industry
- Department of Transport
- Federation of Petroleum Suppliers
- Freight Transport Association
- Institute of Petroleum
- Institute of Trading Standards Administration
- Ministry of Defence
- Motor Cycle Industry's Association of Great Britain
- Petrol Pump Manufacturers' Association
- Petrol Retailers' Association
- Road Haulage Association
- Royal Automobile Club
- Society of Motor Manufacturers and Traders
- United Kingdom Petroleum Industry Association
- World Wide Fund for Nature

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National foreword

This British Standard has been prepared by Technical Committee PTI/2 and is the English language version of EN 228:1993 *Automotive fuels — Unleaded petrol — Requirements and methods of test*, published by the European Committee for Standardization (CEN).

EN 228:1993 was produced as a result of international discussions in which the United Kingdom participated.

This edition of BS EN 228 supersedes BS EN 228:1993, which is withdrawn.

BS EN 228:1993 superseded BS 7070:1988, which was withdrawn.

EN 228:1993 requires that each country implementing it establishes national annexes detailing requirements for “pump marking”, “RON and MON requirements for regular grade”, and “seasonal volatility”. Also, if the methods for sampling given in ISO 3170 and ISO 3171 are not to be used, a national annex has to detail national requirements. National annex NA of BS EN 228 gives additional requirements on sampling, in particular for sampling from the pump; National annex NB gives details of requirements for pump marking, National annex NC gives details of the RON and MON requirements for regular grade; and National annex ND gives details of seasonal volatility requirements.

The principal differences between this British Standard and BS 7070:1988 include the following.

Phosphorous containing compounds are excluded.

The acidity of fuel ethanol blendstock is limited.

The minimum density is increased to 725 kg/m³ and a maximum is given.

The limit for sulfur content is reduced to 0.10 % (m/m) and, from 1995-01-01, to 0.05 % (m/m).

The minimum oxidation stability is increased from 240 min to 360 min.

A storage grade with an oxidation stability of 480 min is no longer included.

Oxygenates are now limited by reference to Directive 85/536/EEC.

This British Standard was first published in 1993. This edition introduces technical changes to National annex NB but it does not reflect a full review or revision of the national annexes, which may be undertaken in due course. The principal change is to the label to be displayed on the dispensing pump.

NOTE *Testing.* In the laboratory testing of petrol against the requirements of clause 5 of this British Standard it is necessary to use equipment and procedures exactly as laid down in the appropriate test methods. In particular, it is essential to use properly inspected and maintained standard CFR¹⁾ engines for the determination of both RON and MON. A useful guide to the satisfactory operation and test precision of a CFR engine can be obtained by including it in the Engine Test Correlation Programme of the Institute of Petroleum. Details of this programme are available from the Institute of Petroleum or the British Standards Institution.

Cross-references

Publication referred to	Corresponding British Standard
EN 5	BS 4348:1976 <i>Determination of existent gum in fuels by jet evaporation</i>
ISO 2160:1985	BS 2000 <i>Methods of test for petroleum and its products</i> Part 154:1993 <i>Petroleum products. Corrosiveness to copper. Copper strip test</i>
ISO 3170:1988	BS 3195 <i>Methods for sampling petroleum products</i> Part 1:1989 <i>Manual sampling of liquid hydrocarbons</i>
ISO 3171:1988	BS 3195 <i>Methods for sampling petroleum products</i> Part 2:1989 <i>Automatic pipeline sampling of liquid hydrocarbons</i>

¹⁾ Co-operative Fuel Research Committee.

Publication referred to	Corresponding British Standard
ISO 3405:1988	BS 7392:1990 <i>Method for determination of distillation characteristics of petroleum products</i>
ISO 3675:1979	BS 4714:1980 <i>Method for laboratory determination of density or relative density of crude petroleum and liquid petroleum products (hydrometer method)</i>
ISO 4259:1979	BS 4306:1981 <i>Method for determination and application of precision data in relation to methods of test for petroleum products</i>
ISO 5163:1990	BS 2637:1991 <i>Method for determination of knock characteristics of motor and aviation-type fuels (motor method)</i>
ISO 5164:1990	BS 2638:1991 <i>Method for determination of knock characteristics of motor fuels (research method)</i>

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Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, the EN title page, pages 2 to 12, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

