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Methods for

Analysis and testing of coal and coke —

Part 7: Ultimate analysis of coke

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- British Cast Iron Research Association
- British Ironfounders' Association
- British Mechanical Engineering Confederation
- Central Electricity Generating Board*
- Chamber of Coal Traders
- Coke Oven Managers' Association*
- Combustion Engineering Association*
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- Department of Energy
- Domestic Solid Fuel Appliances Approval Scheme
- Greater London Council
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- Institution of Heating and Ventilating Engineers
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- National Coal Board*
- Society of British Gas Industries
- Solid Fuel Advisory Service
- Water-tube Boilermakers' Association
- Women's Solid Fuel Council

The organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

- British Coal Exporters' Federation
- British Gas Corporation
- British Steel Corporation
- Cement Makers' Federation
- Chemical Industries Association
- Electricity Supply Industry in England and Wales
- Institute of Trading Standards Administration
- London Coal Exporters' Association
- Scientific Instruments Manufacturers' Association of Great Britain
- Society of Chemical Industry
- Solid Smokeless Fuels Federation
- Independent experts

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Foreword

BS 1016 comprises a series of Parts dealing with methods for the analysis and testing of coal and coke. It is gradually being restructured and Parts in the new series have been allocated numbers from 100 onwards. The current Parts are as follows, with new Part numbers (which will be given to revisions when they are published) in parentheses where appropriate.

- *Part 1: Total moisture of coal (Part 101);*
- *Part 2: Total moisture of coke (Part 102);*
- *Part 6: Ultimate analysis of coal (Part 106);*
- *Part 7: Ultimate analysis of coke (Part 106);*
- *Part 8: Chlorine in coal and coke (Part 106);*
- *Part 9: Phosphorus in coal and coke (Part 106);*
- *Part 10: Arsenic in coal and coke (Part 106);*
- *Part 11: Forms of sulphur in coal (Part 106);*
- *Part 14: Analysis of coal ash and coke ash (Part 114);*
- *Part 15: Fusibility of coal ash and coke ash (Part 113);*
- *Part 16: Methods for reporting results (Part 100);*
- *Part 17: Size analysis of coal (Part 109);*
- *Part 18: Size analysis of coke (Part 110);*
- *Part 20: Determination of Hardgrove grindability index of hard coal (Part 112);*
- *Part 21: Determination of moisture-holding capacity of hard coal (Part 103);*
- *Part 104: Proximate analysis;*
- *Part 105: Determination of gross calorific value;*
- *Part 107: Caking and swelling properties of coal;*
- *Part 108: Tests special to coke;*
- *Part 111: Determination of abrasion index of coal.*

The methods given in BS 1016 are specified for the analysis of coal or of coke or, in some instances, for the analysis of both coal and coke. Experience has shown that, in general, the methods may also be used for the analysis of manufactured smokeless fuels (other than coke) made by a conventional process. However, as no systematic survey has been made of their applicability to all such fuels, it is not possible to state whether the ultimate analysis methods for coal (see Part 6) or those for coke will be more appropriate for a particular fuel; usually the former are likely to be satisfactory for fuels prepared at temperatures below 800 °C.

The revision of Part 7 has been undertaken in order to complete the introduction of metric units and to adopt a uniform presentation. No technical changes have been made to the methods retained from the previous edition of this Part, but the Liebig method has been deleted as it is now little used for the determination of carbon and hydrogen in coke.

The high temperature method for the determination of carbon and hydrogen is technically equivalent to ISO 609. Similarly, the method for nitrogen and the method for sulphur correspond technically with those specified in ISO 333 and ISO 351, respectively.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 10, 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.

