

CONFIRMED
APRIL 1993

Methods for

Analysis and testing of coal and coke —

Part 21: Determination of moisture-holding capacity of hard coal

[ISO title: Hard coal — Determination of moisture-holding
capacity]

UDC [662.66 + 662.74]:662.66:543.817

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW



Document Sharing Hub

Cooperating organizations

The Solid Fuel Standards Committee, under whose direction this British Standard was prepared, consists of representatives from the following:

- Association of Consulting Engineers
- British Carbonization Research Association*
- British Ironfounders Association
- Chamber of Coal Traders
- Chartered Institution of Building Services
- Coke Oven Managers' Association
- Combustion Engineering Association
- Consumer Standards Advisory Committee of BSI
- Council of Ironfoundry Associations
- Department of Energy (Energy Technology)
- Domestic Solid Fuel Appliances Approval Scheme
- Electricity Supply Industry in England and Wales*
- Health and Safety Executive
- Heating and Ventilating Contractors' Association
- Institute of Energy
- Low Temperature Coal Distillers Association of Great Britain Ltd.
- National Coal Board*
- Society of British Gas Industries
- Solid Smokeless Fuels Federation*
- Women's Solid Fuel Council

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

- British Gas Corporation
- British Steel Corporation
- Cement Makers' Federation
- Chemical Industries Association
- Institute of British Foundrymen
- Institute of Petroleum
- Scientific Instrument Manufacturers' Association
- Individual experts

This British Standard, having been prepared under the direction of the Solid Fuel Standards Committee, was published under the authority of the Executive Board and comes into effect on 31 August 1981

© BSI 08-1999

The following BSI references relate to the work on this standard:
Committee reference SFC/3
Draft for comment 80/55220 DC

ISBN 0 580 12263 8

Amendments issued since publication

Amd. No.	Date of issue	Comments

Contents

	Page
Cooperating organizations	Inside front cover
National foreword	ii
0 Introduction	1
1 Scope and field of application	1
2 Reference	1
3 Principle	1
4 Reagent	1
5 Apparatus	1
6 Preparation of sample	1
7 Procedure	1
8 Expression of results	2
9 Precision of the method	3
10 Test report	3
Annex A Determination of moisture in the conditioned coal	6
Annex B Nitrogen purification train	6
Figure 1 — Apparatus for determination of moisture-holding capacity of coal (atmospheric pressure method)	4
Figure 2 — Apparatus for determination of moisture-holding capacity of coal (reduced pressure method)	5
Publications referred to	Inside back cover

National foreword

This British Standard, which has been prepared under the direction of the Solid Fuel Standards Committee, is identical with ISO 1018 *Hard coal — Determination of moisture-holding capacity*, published in 1975 by the International Organization for Standardization (ISO), and prepared by ISO/TC 27, *Solid mineral fuels*.

This British Standard is one of a series issued under the same number, BS 1016, dealing with methods for analysis and testing of coal and coke; the other Parts are as follows:

- Part 1: Total moisture of coal¹⁾;
- Part 2: Total moisture of coke;
- Part 3: Proximate analysis of coal;
- Part 4: Moisture, volatile matter and ash in the analysis sample of coke;
- Part 5: Gross calorific value of coal and coke;
- Part 6: Ultimate analysis of coal;
- Part 7: Ultimate analysis of coke;
- Part 8: Chlorine in coal and coke;
- Part 9: Phosphorus in coal and coke;
- Part 10: Arsenic in coal and coke;
- Part 11: Forms of sulphur in coal;
- Part 12: Caking and swelling properties of coal;
- Part 13: Tests special to coke;
- Part 14: Analysis of coal ash and coke ash;
- Part 15: Fusibility of coal ash and coke ash;
- Part 16: Reporting of results¹⁾;
- Part 17: Size analysis of coal;
- Part 18: Size analysis of coke;
- Part 19: Determination of the index of abrasion of coal;
- Part 20: Determination of Hardgrove grindability index of hard coal.

Terminology and conventions. The text of the International Standard has been approved as suitable for publication as a British Standard without deviation. Some terminology and certain conventions are not identical with those used in British Standards; attention is especially drawn to the following.

The comma has been used throughout as a decimal marker. In British Standards it is current practice to use a full point on the baseline as the decimal marker.

Where the words “International Standard” appear, referring to this standard, they should be read as “British Standard”.

Cross-references. The Technical Committee has reviewed the provisions of ISO 589:1974, to which reference is made in the footnote on page 1, and ISO 1988:1975, to which reference is made in clauses 2 and 6, and has decided that they are suitable for use in conjunction with this standard. The related British Standards for ISO 589 and ISO 1988 are BS 1016 “*Methods for the analysis and testing of coal and coke*” — Part 1:1973 “*Total moisture of coal*” and BS 1017 “*Methods for sampling of coal and coke*” — Part 1:1977 “*Sampling of coal*” respectively.

NOTE ISO 1988 and BS 1017-1 have some technical differences but both are under revision; it is expected that the BS will be identical with the ISO Standard when the revision is complete.

¹⁾ Under revision.

HAZARD WARNING. This British Standard method does not necessarily detail all precautions necessary to meet the requirements of the Health and Safety at Work etc. Act 1974. Attention should be paid to any appropriate safety precautions, particularly with regard to the use of vacuum desiccators, and the method should be operated only by trained personnel.

NOTE *Textual errors.* When adopting the text of the International Standard the errors given below were noticed. They have been marked in this British Standard and have been reported to ISO in a proposal to amend the text of the International Standard.

In the plan view of Figure 1, the top positioning stud on the top right hand dish has been omitted.

In **7.3.1** the lid of the dish should be stored in a desiccator whilst the dish is in the conditioning vessel.

In **A.3** the lid of the dish should be placed in the oven with the dish and not in a desiccator.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 6, 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.