

Under lensid see DR 85217

SUPERSEDED BY

AS 1038.16 - 1986 ; 620.16

AS 1038, Part 16-1981

UDC [662.66 + 662.74]:649.8-

Australian Standard 1038, Part 16—1981

METHODS FOR THE ANALYSIS AND TESTING OF COAL AND COKE

Part 16—REPORTING OF RESULTS



STANDARDS ASSOCIATION OF AUSTRALIA

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THE FOLLOWING INDUSTRIAL, SCIENTIFIC AND GOVERNMENTAL organizations and departments were officially represented on the committee entrusted with the preparation of this standard:

Australian Coal Association
Australian Institute of Energy
Australasian Institute of Mining and Metallurgy
Bureau of Steel Manufacturers of Australia
Coal Preparation Societies of N.S.W. and Queensland
Confederation of Australian Industry
Department of Minerals and Energy, Victoria
Department of Mineral Resources, N.S.W.
Department of National Development
Electricity Supply Association of Australia
Institution of Engineers, Australia
Joint Coal Board
Queensland Coal Board
Royal Australian Chemical Institute
Universities

This standard, prepared under the direction of Committee MN/1, Coal and Coke, was approved by the Council of the Standards Association of Australia on 21 July 1981, and was published on 9 November 1981.

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This standard was issued in draft form for public review as DR 80010.

AUSTRALIAN STANDARD

**METHODS FOR THE
ANALYSIS AND TESTING
OF COAL AND COKE**

**Part 16
REPORTING OF
RESULTS**

AS 1038, Part 16—1981

First published (as AS K152, Part 16) 1965
(endorsement of BS 1016 : Part 16 : 1960)
AS 1038, Part 16 first published 1975
Second edition 1981

**PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY, N.S.W.**

ISBN 0 7262 2338 7



PREFACE

This edition of this standard was prepared by the Association's Committee on Coal and Coke to supersede AS 1038, Part 16—1975. This standard has all the features of the 1975 edition except for the following:

- (a) All definitions are contained in the appropriate part of AS 2418.
- (b) Some of the symbols have been modified to facilitate the reporting of results.
- (c) The interpretation of results is essentially unchanged except for Table 3.1 (formerly Table 2) which has been extended to include reference to additional Parts of AS 1038.
- (d) Appendix A has been shortened to delete reference to the tests 'critical air blast' and 'reactivity volatile joules' which are no longer included in Part 13 of AS 1038.

This standard refers to the following standards:

AS 1038	Methods for the Analysis and Testing of Coal and Coke
	Part 1—Total Moisture in Coal
	Part 2—Total Moisture in Coke
	Part 3—Proximate Analysis of Hard Coal
	Part 4—Proximate Analysis of Coke
	Part 5—Gross Specific Energy 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 12.1—Crucible Swelling Number of Coal
	Part 12.2—Gray-King Coke Type Test
	Part 13—Tests Special to Coke
	Part 14.1—Analysis of Coal Ash, Coke Ash and Mineral Matter (Borate Fusion—Flame Atomic Absorption Spectrometric Method)
	Part 15—Fusibility of Coal Ash and Coke Ash
	Part 20—Hardgrove Grindability Index of Hard Coal
	Part 21—Relative Density and Apparent Relative Density of Hard Coal*
	Part 22—Direct Determination of Mineral Matter and Water of Hydration of Minerals in Coal*
AS 2418	Glossary of Terms Relating to Solid Mineral Fuels
BS 526	Definitions of the Calorific Value of Fuels

*In course of preparation.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

METHODS FOR THE ANALYSIS AND TESTING OF
COAL AND COKE

PART 16—REPORTING OF RESULTS

SECTION 1. SCOPE, DEFINITIONS AND
ABBREVIATIONS

1.1 SCOPE. This standard sets out procedures for the reporting of results obtained by the use of the methods in other parts of AS 1038.

1.2 DEFINITIONS. For the purpose of this standard, the definitions given in AS 2418 apply.

1.3 ABBREVIATIONS.

1.3.1 Symbols. The following symbols are used to represent quantities reported as a percentage by mass of the coal or coke except for specific energy which is reported as heat per unit mass (in megajoules per kilogram):

<i>A</i>	=	ash
<i>C</i>	=	total carbon (including carbon from carbonates)
<i>C_o</i>	=	organic carbon
<i>Cl</i>	=	chlorine
<i>CO₂</i>	=	carbon dioxide from carbonates
<i>FC</i>	=	fixed carbon
<i>H</i>	=	hydrogen (excluding hydrogen from moisture but including hydrogen from water of hydration of minerals)
<i>H_o</i>	=	organic hydrogen
<i>M</i>	=	moisture
<i>M_f</i>	=	free moisture
<i>MM</i>	=	mineral matter
<i>N</i>	=	nitrogen
<i>O</i>	=	total oxygen
<i>O_o</i>	=	organic oxygen
<i>P</i>	=	phosphorus