

Australian Standard 2418, Part 1—1980

GLOSSARY OF TERMS RELATING TO SOLID MINERAL FUELS

Part 1—TERMS RELATING TO COAL PREPARATION



STANDARDS ASSOCIATION OF AUSTRALIA
Incorporated by Royal Charter



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 10 October 1980, and was published on 1 December 1980.

To keep abreast of progress in industry, Australian standards are subject to continuous review and are kept up-to-date by the issue of amendments or new editions as necessary. It is important therefore that standards users ensure that their standards are up-to-date. Full details of all SAA publications will be found in the Annual List of Australian Standards; these details are supplemented by listings in the SAA monthly journal 'The Australian Standard'. Information on the Annual List and 'The Australian Standard' may be obtained from any sales office of the Association, where details are also available of the current status of individual standards. Suggestions for improvements to published standards, addressed to the head office of the Association, are welcomed.

This standard was issued in draft form for public review as DR 79159.

AUSTRALIAN STANDARD

**GLOSSARY OF TERMS RELATING TO
SOLID MINERAL FUELS**

**Part 1
TERMS RELATING TO COAL
PREPARATION**

AS 2418, Part 1—1980

First published (as AS K181)	1968
AS 2418, Part 1 first published	1980

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

ISBN 0 7262 2095 7



APRIL 1981

PREFACE

This standard was prepared by the Association's Committee on Coal and Coke under the direction of the Minerals Standards Committee as a revision of AS K181—1968 which it accordingly supersedes. It contains terms which are currently in use in coal preparation in Australia and internationally.

This standard is based on AS K181—Glossary of Terms Used in Coal Preparation, and the draft revision of ISO 1213/Part 1—Vocabulary of Terms Relating to Solid Mineral Fuels, Part 1—Terms Relating to Coal Preparation.

©Copyright — STANDARDS ASSOCIATION OF AUSTRALIA 1980

Users of standards are reminded that copyright subsists in all SAA publications. No part of this publication may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing of the Standards Association of Australia.

May 1982

STANDARDS ASSOCIATION OF AUSTRALIA

Incorporated by Royal Charter

CORRIGENDA

to

AS 2418, Part 1—1980

GLOSSARY OF TERMS RELATING TO SOLID MINERAL FUELS
PART 1—TERMS RELATING TO COAL PREPARATION

Published on 17 May 1982.

-
- ✓Page 3. actual performance curve—alter 'that' to 'the'
 - ✓Page 6. disintegration—insert 'by' after 'in water or'
 - ✓Page 7. equipment flowsheet—add '(a)' after 'See flowsheet'
 - ✓Page 9. jiggling screen—add '(d)' after 'See screen'
 - ✓Page 9. liquids flowsheet—add '(b)' after 'See flowsheet'
 - ✓Page 10. materials flowsheet—add '(c)' after 'See flowsheet'
 - ✓Page 10. nominal area (of a screen)—add '(See effective area of a screen) after 'feed'
 - ✓Page 11. open circuit—alter 'products' to 'product'
 - ✓Page 11. open loop control—add '(c)' to 'See loop control'
 - ✓Page 11. percentage open area—add '(See effective screening area)' after 'cloth'
 - ✓Page 12. primary cells—add '(a)' after 'See cells'
 - ✓Page 12. reject elevator—alter 'washing' to 'cleaning'
 - ✓Page 13. rougher cells—add '(a)' after 'See cells'
 - ✓Page 13. scavenger cells—add '(c)' after 'See cells'
 - ✓Page 15. total of misplaced material (line 3)—alter 'mass' to 'masses'
-

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

GLOSSARY OF TERMS RELATING TO SOLID MINERAL FUELS

PART 1—TERMS RELATING TO COAL PREPARATION

Term	Explanation
activator	A substance which when added to a pulp promotes flotation in the presence of a collecting agent.
activating agent	A substance which when added to a pulp promotes flotation in the presence of a collecting agent.
actual performance curve	A performance curve showing that results actually obtained from a coal preparation treatment (see also performance curve). THESE AMENDMENT (5.82)
actuator	The final item in a control-system which adjusts the setting of the controlled variable in accordance with instructions received from the controller.
aeration	The introduction of air into the pulp in a flotation cell in order to form air bubbles.
agglomeration	A process in which small particles are caused to adhere to one another.
agitator	A device used to bring about a continuous vigorous disturbance in a pulp, frequently used to assist bubble formation.
air classification	The process of particle sizing in a current of air (see also classification).
air compressor	A compressor, either rotary or reciprocating, used to produce air at a pressure suitable for specific operations in the coal preparation plant.
air jig	A machine in which the feed is stratified according to its relative density by means of pulsating currents of air and from which the stratified products are separately removed.
air valve (jig)	The valve which controls the alternate admission and release of compressed air to each cell of a jig.
amplitude	The maximum displacement from the mean position in an oscillating motion. In the case of a screen with a straight line motion or elliptical motion, it is half of the total movement or half of the major axis of the ellipse. In the case of a circular motion, it is the radius of the circle (see also stroke).
angle of reclaim	The maximum angle between the surface of the material and the horizontal plane formed as the material is being reclaimed. It is dependent on the conditions existing at the time of measurement.
angle of repose	The maximum angle contained between the surface of a heap of loosely piled material and the horizontal.
aperture (size)	The dimension or dimensions defining the opening in the screening surface, usually with qualification as to the shape of aperture, e.g. 'round-hole', 'square-mesh', 'knot-hole', 'wedge-wire'.
apron feeder	Apron feeder (a).
ash error	The difference between the actual percentage ash of a product of a separation and that shown by the washability curve (based on the reconstituted feed) corresponding to the actual yield obtained.
ash, inherent	Ash derived from mineral matter intimately associated with coal and not readily separable by physical processes.
ash monitor	A device which, either continuously or intermittently, indicates the percentage of ash in the feed or product of a coal preparation operation.
ash—relative density curve	The curve obtained from the float and sink analysis by plotting the percentages of ash in successive fractions against the mean relative density of the fraction.
ash, total	The inorganic residue after the incineration of coal or coke to constant mass under standard conditions. In general, it differs in mass and composition from the original mineral matter.
ball	A device such as a steel plate, used to check, retard or divert the flow of materials.
bag filter	An apparatus for removing dust from dust-laden air, employing containers of closely woven material which permit passage of air but retain solid particles.
ball mill	A container, generally cylindrical, rotating on a horizontal axis and partly filled with balls (e.g. of steel) which, by their tumbling motion, reduce the feed into a finely comminuted material.
balling	See nodulizing and agglomeration.
bar screen	See screen (a).
barometric leg	The pipe connection between the moisture trap and water seal in the vacuum arrangement of a filter installation.