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METHODS FOR THE ANALYSIS AND TESTING OF COAL AND COKE Part 3—PROXIMATE ANALYSIS OF HARD COAL

1038 Methods for the analysis and testing of coal and
coke
Part 3—1989 Proximate analysis of higher rank
coal

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Sets out methods for the determination of moisture, ash and
volatile matter on the analysis sample of higher rank coal.
Fixed carbon is calculated by difference.

Committee MN/1: Supersedes AS 1038.3—1979; Draft for comment DR 88019;
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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 and Development
Department of National Development
Electricity Supply Association of Australia
Institution of Engineers, Australia
Joint Coal Board
Queensland Coal Board
Royal Australian Chemical Institute
Universities

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In order to keep abreast of progress in industry, Australian standards are regularly reviewed. Suggestions for improvement to published standards, addressed to the head office of the Association, are welcomed.

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AUSTRALIAN STANDARD

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

Part 3
**PROXIMATE ANALYSIS
OF HARD COAL**

AS 1038, Part 3—1979

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PREFACE

This standard was prepared by the Association's Committee on Coal and Coke as a revision of AS K152, Part 3—1968, which it accordingly supersedes. AS K152, Part 3 was the endorsement of BS 1016, Part 3—1965. This revision is based on the 1973 edition of BS 1016, Part 3, and has been carried out as part of the process of revision and metrication of methods for the analysis and testing of coal and coke.

This standard requires reference to the following standards:

- | | |
|---------|---|
| AS 1038 | Methods for the Analysis and Testing of Coal and Coke
Part 16—Reporting of Results |
| AS 1152 | Test Sieves |
| AS 1676 | Methods for the Sampling of Hard Coal |
| BS 1453 | Filler Materials for Gas Welding |
| BS 1752 | Laboratory Sintered or Fritted Filters |

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard METHODS FOR THE ANALYSIS AND TESTING OF COAL AND COKE

PART 3—PROXIMATE ANALYSIS OF HARD COAL

1 SCOPE. This standard describes the procedures for the determinations to be made on the analysis sample of hard coal in order to obtain its proximate analysis.

2 DEFINITIONS. For the purpose of this standard the following definitions apply:

2.1 Proximate analysis—the analysis of coal expressed in terms of moisture in the analysis sample, volatile matter, ash and fixed carbon.

2.2 Moisture in the analysis sample—the moisture in the analysis sample of coal after it has attained equilibrium with the laboratory atmosphere to which it has been exposed.

2.3 Volatile matter—the loss in mass, less that due to moisture, that occurs when the coal is heated out of contact with air under standard conditions.

2.4 Ash—the inorganic matter remaining after the coal has been incinerated to constant mass under standard conditions.

2.5 Fixed carbon—a calculated figure obtained by subtracting the sum of the percentages of moisture in the analysis sample, volatile matter and ash from 100.

2.6 Repeatability—the maximum acceptable difference between duplicate determinations carried out in the same laboratory, on the same analysis sample.

2.7 Reproducibility—the maximum acceptable difference between the mean of duplicate determinations carried out in one laboratory and the mean of duplicate determinations carried out in any other laboratory, on representative samples taken from the same bulk sample, after the last stage of the reduction process.

3 SAMPLES.

3.1 General. Samples shall be taken according to AS 1676 and shall be prepared so that at least 99 percent passes a 212 μm sieve complying with AS 1152.