

Australian Standard™

Coal and coke—Analysis and testing

**Part 3: Proximate analysis of higher
rank coal**

This Australian Standard was prepared by Committee MN/1, Coal and Coke. It was approved on behalf of the Council of Standards Australia on 17 January 2000 and published on 1 March 2000.

The following interests are represented on Committee MN/1:

Australasian Institute of Mining and Metallurgy
Australian Coal Association
Australian Coal Preparation Society
Australian Institute of Energy
Bureau of Steel Manufacturers of Australia
Coalfield Geology Council of New South Wales
CSIRO, Division of Energy Technology
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Australian Standard™

Coal and coke—Analysis and testing

Part 3: Proximate analysis of higher rank coal

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PREFACE

This Standard was prepared by the Standards Australia Committee MN/1, Coal and Coke to supersede AS 1038.3—1989, *Coal and coke—Analysis and testing, Part 3: Proximate analysis of higher rank coal*.

The differences from the previous edition are as follows:

- (a) The deletion of the direct gravimetric method for the determination of moisture.
- (b) The use of a nitrogen cooling chamber in the determination of moisture.
- (c) The deletion of the requirement to brush out the crucible during the determination of ash.
- (d) Editorial changes to bring the Standard in line with current style.

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STANDARDS AUSTRALIA

Australian Standard

Coal and coke—Analysis and testing

Part 3: Proximate analysis of higher rank coal

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard sets out methods for the determination of moisture, ash and volatile matter on the analysis sample of higher rank coal in order to obtain its proximate analysis. Fixed carbon is calculated by difference.

1.2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

1038 Coal and coke—Analysis and testing

1038.16 Part 16: Assessment and reporting of results

2243 Safety in laboratories (series)

2418 Coal and coke—Glossary of terms

2508 Safe storage and handling information card (series)

2706 Numerical values—Rounding and interpretation of limiting values

4264 Coal and coke—Sampling

4264.1 Part 1: Higher rank coal—Sampling procedures

1.3 DEFINITIONS For the purpose of this Standard, the definitions in AS 2418, and those below, apply.

1.3.1 Higher rank coal—coal having a gross specific energy of 21 MJ/kg or greater on an ash-free moist basis *and* a gross specific energy of 27 MJ/kg or greater on a dry, ash-free basis.

1.3.2 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.

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

1.4 SAFETY For information on laboratory safety, reference should be made to the relevant parts of AS 2243 and AS 2508.

1.5 APPARATUS All apparatus shall be constructed from materials that are thermally stable and chemically inert under the conditions of the procedure.

1.6 SAMPLE

1.6.1 General The sample shall be the analysis sample prepared to a nominal top size of 212 μm . Sample preparation procedures are described in AS 4264.1.