

Australian Standard[®]

Coal and coke—Analysis and testing

**Part 21.1.1: Higher rank coal and coke—
Relative density—Analysis
sample/density bottle method**



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The following are represented on Committee MN-001:

- Australasian Institute of Mining and Metallurgy
 - Australian Coal Association
 - Australian Coal Preparation Society
 - Australian Institute of Energy
 - CSIRO, Energy Technology
 - Department of Natural Resources and Mines, Qld
 - Institution of Engineers, Australia
 - Minerals Council of Australia
 - National Generators Forum
 - University of Newcastle
 - University of New South Wales
 - University of Queensland
-

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sample/density bottle method**

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PREFACE

This Standard was prepared by the Standards Australia Subcommittee on Coal Evaluation, under the supervision of the Committee MN-001, Coal and Coke, as a revision of AS 1038.21.1.1—2002, *Coal and coke—Analysis and testing, Part 21.1.1: Higher rank coal and coke—Relative density—Analysis sample/density bottle method*.

The objective of this Standard is to provide those responsible for testing coal and coke with a standardized method for measuring the relative density using a density bottle, so that disputes can be minimized.

This revision makes changes to the temperature of the water bath.

The term ‘informative’ has been used in this Standard to define the application of the appendix to which it applies. An ‘informative’ appendix is for information and guidance only.

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STANDARDS AUSTRALIA**Australian Standard****Coal and coke—Analysis and testing****Part 21.1.1: Higher rank coal and coke—Relative density—Analysis
sample/density bottle method****1 SCOPE**

This Standard sets out a method for the determination of the relative density of higher rank coal and coke by a relative density bottle.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

- 1038 Coal and coke—Analysis and testing
- 1038.3 Part 3: Proximate analysis of higher rank coal
- 1038.4 Part 4: Coke—Proximate analysis
- 1038.16 Part 16: Assessment and reporting of results
- 2378 Density bottles
- 2418 Coal and coke—Glossary of terms
- 2706 Numerical values—Rounding and interpretation of limiting values
- 4264 Coal and coke—Sampling
- 4264.1 Part 1: Higher rank coal—Sampling procedures
- 4264.2 Part 2: Coke—Sampling procedures

AS/NZS

- 2243 Safety in laboratories (series)

3 DEFINITIONS

For the purpose of this Standard, the definitions given in AS 2418 apply.

4 PRINCIPLE

The mass of water displaced by a known mass of air-dry coal or coke is determined in a density bottle.

5 SAFETY

For information on laboratory safety, reference should be made to the relevant parts of AS/NZS 2243.

6 REAGENTS**6.1 Distilled water**

Distilled water or water of equivalent purity.