AS 3980:2016

Determination of gas content of coal and carbonaceous material—Direct desorption method

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- Australasian Institute of Mining and Metallurgy
- Australian Coal Industry Reference Samples
- Australian Coal Preparation Society
- Australian Energy Council
- Coalfield Geology Council of NSW
- CSIRO
- Department of Natural Resources and Mines, Qld
- Minerals Council of Australia
- National Association of Testing Authorities Australia
- University of Newcastle
- University of New South Wales
- University of Queensland

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Australian Standard®

Determination of gas content of coal and carbonaceous material—Direct desorption method

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PREFACE

This Standard was prepared by the Standards Australia Committee MN-001, Coal and Coke, to supersede AS 3980—1999, *Guide to the determination of gas content of coal seams—Direct desorption method*.

The objective of this Standard is to provide procedures for the determination of the desorbed gas content of coal and carbonaceous material by directly measuring the volume of gas, using the water displacement method, from material obtained by coring or collection of lump samples.

The major changes in this edition are to—

(a) change from a guidance document to a Standard;

(b) refine reporting requirements;

(c) addition of remaining gas, Q_3', and change the Q_3 method to extend the measurement time to reach equilibrium; and

(d) inclusion of generic gas content uncertainty calculation.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

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STANDARDS AUSTRALIA

Australian Standard

Determination of gas content of coal and carbonaceous material—Direct desorption method

1 SCOPE

This Standard covers the following two direct methods, which vary only in the time allowed for the gas to desorb from the intact sample prior to final crushing:

(a) The slow desorption method.

(b) The fast desorption method.

The Standard is confined to the direct method using lump or core samples.

Desorption limitations to the method are specified in Appendix A.

This Standard does not include the gas content determination using cuttings from drilling and interpretation of the results do not fall within the scope of this document.

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
1038.21.2	Part 21.2:Higher rank coal and coke—Relative density—Lump sample
2163	Laboratory glassware—Measuring cylinders
2418	Coal and coke—Glossary of terms

ISO/IEC

GUIDE 98-3 Uncertainty of measurement—Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)

Eurolab 1/2007

Technical Report No. 1/2007 March 2007, Measurement uncertainty revisited: Alternative approaches to uncertainty evaluation

Nordtest TR537

Handbook for calculation of measurement uncertainty in environmental laboratories (NT TR 537– Edition 3.1)

NATA Technical Note 33

Guidelines for estimating and reporting measurement uncertainty of chemical test results, February 2016