



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



This Australian Standard® was prepared by Committee MN-001, Coal and Coke. It was approved on behalf of the Council of Standards Australia on 4 November 2016. This Standard was published on 28 November 2016.

The following are represented on Committee MN-001:

- 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
-

This Standard was issued in draft form for comment as DR AS 3980:2016.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Australian Standard®

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

Originated as AS 3980—1991.
Previous edition 1999.
Third edition AS 3980:2016.

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Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 978 1 76035 604 0

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