

Australian/New Zealand Standard™

**Domestic solid fuel burning
appliances—Test fuels**

Part 2: Softwood



AS/NZS 4014.2:2016

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CS-062, Consumer Products and Services and Safety. It was approved on behalf of the Council of Standards Australia on 14 January 2016 and on behalf of the Council of Standards New Zealand on 23 November 2015. This Standard was published on 3 March 2016.

The following are represented on Committee CS-062:

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Australian Home Heating Association
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Part 2: Softwood

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PREFACE

This Standard was prepared by the Joint Standards Australia/New Zealand Committee CS-062, Solid Fuel Burning Appliances, to supersede AS/NZS 4014.2:1999.

Determination of reliable and repeatable test results when testing appliances for compliance with AS/NZS 4012, *Domestic solid fuel burning appliances—Method for determination of power output and efficiency*, and AS/NZS 4013, *Domestic solid fuel burning appliances—Method for determination of flue gas emission* is essential and requires control of many factors.

The objective of this Standard is to provide testing agencies with means for preparing consistent batches of test fuels so that the test results produced when testing different appliances may be readily compared and correlated. The objective of the revision is to update the density ranges.

This Standard is Part 2 of the AS/NZS 4014 series used when testing solid fuel burning appliances. Other Parts in this series are as follows:

- 4014.1 Part 1: Hardwood
- 4014.3 Part 3: Lignite briquettes
- 4014.4 Part 4: Sub-bituminous coal

The fuel types listed in this series of Standards are not exhaustive. The fuel types referred to in this series are only intended for use when testing appliances to be installed and operated in Australia and New Zealand. To achieve wider use of these Standards when testing appliances for compliance with AS/NZS 4012 and AS/NZS 4013, they have been structured to allow additional test fuel types to be added when the fuel type commonly used is different.

The term ‘normative’ has been used in this Standard to define the application of the appendix to which it applies. A ‘normative’ appendix is an integral part of a Standard.

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard**Domestic solid fuel burning appliances—Test fuels****Part 2: Softwood****1 SCOPE**

This Standard sets out a method for the determination of softwood test fuels to be used when applying the test methods described in AS/NZS 4012 and AS/NZS 4013.

2 APPLICATION

Where softwood test fuels are used when testing solid fuel appliances for compliance with AS/NZS 4012 and AS/NZS 4013, the softwood shall be in accordance with this Standard.

3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS/NZS

4012 Domestic solid fuel burning appliance—Method for determination of power output and efficiency

4013 Domestic solid fuel burning appliances—Method for determination of flue gas emission

ISO

1928 Solid mineral fuels—Determination of gross calorific value by the bomb calorimetric method and calculation of net calorific value

ASTM

D1102 Standard Test Method for Ash in Wood

4 PRINCIPLE

Sample pieces selected from test fuel are tested to ensure that all test fuel meets the range of density, moisture content, calorific value and ash content specified.

5 TEST FUEL**5.1 General**

The test fuel shall be any bark-free softwood, and shall not include pieces with rotted sections. Samples of wood shall be tested at the rates specified in Clauses 5.2 to 5.5.

5.2 Moisture content

Each test fuel piece shall have a moisture content of 16% to 20% of the wet mass of the wood, determined in accordance with Appendix A. Sufficient samples shall be tested to ensure that all firewood used as test fuel is within this range. One sample taken from each larger log which is to be cut into test fuel pieces is sufficient for this purpose.