

Australian/New Zealand Standard™

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

**Part 6: Wood pellets**



## **AS/NZS 4014.6:2007**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CS-062, Solid Fuel Burning Appliances. It was approved on behalf of the Council of Standards Australia on 19 January 2007 and on behalf of the Council of Standards New Zealand on 26 January 2007.

This Standard was published on 23 February 2007.

---

The following are represented on Committee CS-062:

Australasian Fire Authorities Council  
Australian Building Codes Board  
Australian Chamber of Commerce and Industry  
Australian Home Heating Association  
Australian Industry Group  
Australian Institute of Building Surveyors  
Australian Lung Foundation  
Clean Air Society of Australia and New Zealand  
Consumer Federation of Australia  
Department of Environment and Conservation NSW  
Department of Environment and Conservation (WA)  
Department of the Environment and Heritage (Federal)  
Environment Protection Authority (SA)  
Environment Protection Authority (Vic.)  
Fire Protection Association Australia  
Ministry for the Environment–New Zealand  
New Zealand Home Heating Association  
Pellet Energy Association (Australia)  
Solid Energy New Zealand  
Testing Interest (Australia)  
Testing Interest (New Zealand)  
University of Western Australia

---

### **Keeping Standards up-to-date**

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at [www.standards.com.au](http://www.standards.com.au) or Standards New Zealand web site at [www.standards.co.nz](http://www.standards.co.nz) and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

---

*This Standard was issued in draft form for comment as DR 06578.*

---

**Australian/New Zealand Standard™**

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

**Part 6: Wood pellets**

First published as AS/NZS 4014.6:2007.

**COPYRIGHT**

© Standards Australia/Standards New Zealand

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 8049 0

## PREFACE

This Standard was prepared by the Joint Standards Australia/New Zealand Committee CS-062, Solid Fuel Burning Appliances.

Determination of reliable and repeatable test results when testing appliances for compliance with AS/NZS 5077, *Domestic solid fuel burning appliances—Pellet heaters—Determination of installation requirements and construction components*, AS/NZS 5078, *Domestic solid fuel burning appliances—Pellet heaters—Method for determination of power output and efficiency*, and AS/NZS 4886, *Domestic solid fuel burning appliances—Pellet heaters—Method for determination of flue gas emission* is essential and requires control of many factors. This Standard has been prepared 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.

This Standard is Part 6 of a series used when testing solid fuel burning appliances. Other Parts in this series are as follows:

- Part 1: Hardwood
- Part 2: Softwood
- Part 3: Lignite briquettes
- Part 4: Sub-bituminous coal
- Part 5: Semi-anthracite coal briquettes

The fuel types listed in this series of Standards are not exhaustive. The fuel types referred to in this series are 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 5077, AS/NZS 5078 and AS/NZS 4886, they have been structured to allow additional test fuel types to be added when the fuel type commonly used is different.

## CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE .....	4
1.2 APPLICATION .....	4
1.3 REFERENCED DOCUMENTS .....	4
1.4 PRINCIPLE .....	4
SECTION 2 TEST FUEL	
2.1 GENERAL .....	5
2.2 TEST SAMPLE .....	5
2.3 MOISTURE CONTENT .....	5
2.4 BULK DENSITY .....	5
2.5 ASH CONTENT .....	5
2.6 GROSS CALORIFIC VALUE .....	5
2.7 PELLET SIZE .....	5
2.8 FINES .....	5
SECTION 3 REPORT .....	6

## STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

**Australian/New Zealand Standard****Domestic solid fuel burning appliances—Test fuels****Part 6: Wood pellets**

## SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE**

This Standard sets out a method for the determination of wood pellet test fuels to be used when applying the test methods described in AS/NZS 5077, AS/NZS 5078 and AS/NZS 4886.

**1.2 APPLICATION**

Fuels complying with this Standard shall be used when testing solid fuel appliances for compliance with AS/NZS 5077, AS/NZS 5078 and AS/NZS 4886, when these appliances are intended for installation and operation in Australia and New Zealand.

**1.3 REFERENCED DOCUMENTS**

The following documents are referred to in this Standard:

## AS/NZS

- |      |  |
|------|--|
| 5077 | Domestic solid fuel burning appliances—Pellet heaters—Determination of installation requirements and construction components |
| 5078 | Domestic solid fuel burning appliances—Pellet heaters—Determination of power output and efficiency                           |
| 4886 | Domestic solid fuel burning appliances—Pellet heaters—Determination of flue gas emission                                     |

## ISO

- |      |  |
|------|--|
| 1171 | Solid minerals fuels—Determination of ash content  |
| 1928 | Solid mineral fuels—Determination of gross calorific value by the bomb calorimetric method, and calculation of net calorific value |

## ASTM

- |      |  |
|------|--|
| E871 | Method of moisture analysis of particulate wood fuels          |
| E873 | Method for bulk density of densified particulate biomass fuels |

**1.4 PRINCIPLE**

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