

# Make yourself comfortable Australia



# The smartest decision you'll ever make

Australia has one of the harshest climates in the world so we want our homes to insulate us from the extremes of heat and cold. Without insulation, homes can bake in summer as the external heat enters the house through the roof, walls and windows. By installing insulation, and coupling this with shading devices over windows, you can reduce the heat entering the home and minimise the need for air conditioning.

Similarly in winter, a well insulated house reduces the need for heating as the warm air stays contained inside the home.


By reducing the need for air conditioning or heating we save money on our energy bills. This is important as energy costs increase year after year. Minimising energy use also helps the environment given that most of the electricity in Australia is still generated from non-renewable natural resources.

## The smart choice is Gold

Choosing the right insulation is important. You need confidence that the product installed delivers on the performance that is promised. Whether building a new home or undertaking alterations or additions to existing homes, insulating walls and ceilings with Bradford Gold, Australia's leading insulation, is a proven performer and will provide peace of mind for you and your family, whether building a new home or undertaking alterations or additions to existing homes.

## Play it smart with Bradford Gold

- Made in Australia for Australian conditions
- Made by Bradford, Australia's most trusted insulation company for 80 years
- Backed by CSR - serving Australia since 1855
- Partner of Sensitive Choice® program
- 70 year performance warranty
- Meets the highest Australian Insulation standards
- Non combustible\*
- Environmentally sound, made from up to 80% recycled glass



**Bradford Gold can stop up to 70% of all heat transfers in your home**

\* When tested to AS1530.1.





## How heat transfer affects your comfort

Heat transfer occurs in three ways:

### RADIATION

**Direct heat from the sun and hot surfaces.**

In summer, radiation from the sun heats up your roof and wall surfaces and this heat is radiated into your home.



Radiation

### CONVECTION

**Warm air displacing cool air.**

In winter warm air rises and is replaced by cool air entering your home.

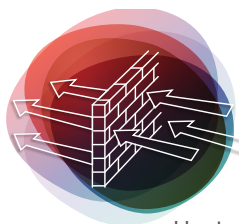


Warm Air

### CONDUCTION

**Heat transferred through materials in your home.**

In summer materials with high thermal mass (concrete or bricks) will stay hot well into the night. This heat is then radiated to the surrounding air.



Heat

Common building materials such as bricks, roof tiles and metal roofing allow most of the heat they receive to pass through them. This is why insulation is important to achieve a comfortable living environment.

In winter, around 42% of a home's heat is lost through the ceiling and 24% typically lost through the walls. In summer heat flows at similar rates into the home.

We have become accustomed to living in comfortable internal environments of between 18-25°C. A well insulated home with good passive solar design can achieve this in many parts of Australia with no air conditioning or heating for most of the year. When you do need to use these appliances, having a well insulated home allows you to achieve your comfort level by running them on lower settings or for shorter periods of time.



# How Bradford Gold insulation works

Bradford Gold glasswool insulation is made from glass spun like fairy floss to create millions of air pockets which impede the flow of heat through the product.

The thicker or denser the insulation is, the more it resists the flow of heat through it. This resistance is measured by the R-value of the insulation. The higher the R-value, the better the insulation's performance.

Whilst some insulation materials can pack down or settle over time, Bradford Gold insulation is guaranteed to maintain its R-value for the life of the home (or 70 years).

## Breathe easy

Many Australian families are concerned about the effects of our modern homes on allergy and sufferers, particularly young children.

Bradford is the only approved insulation partner of the National Asthma Council Australia's Sensitive Choice® program. Bradford Gold insulation is suitable for use in the homes of asthma and allergy sufferers. It also doesn't provide a food source for insects or vermin.



## Best possible fire rating

Bradford Gold insulation achieves the best fire rating when tested to AS1530.3. Zero result for ignitability, spread of flame, smoke developed and heat evolved. These are the best possible ratings.

Bradford Gold insulation will not burn and can hinder the spread of flame. Bradford Gold Ceiling and Wall\* insulation is also classified as non combustible when tested to AS 1530.1.

## GO GREEN WITH GOLD

Electricity generation in Australia is one of the main sources of greenhouse gas emissions and therefore contributes to global warming.

Reducing your consumption of energy for heating and cooling is a responsible, positive action which is environmentally sustainable.

Bradford Gold insulation is produced from up to 80% recycled glass helping to save energy in manufacture and reduce landfill.



\* Excludes Hi-Performance wall batts.





## Performance you can trust

Bradford Gold insulation is manufactured under ISO 9002 Quality Systems and complies with AS4859.1 'Materials for the Thermal Insulation of Buildings'.\*

Established in 1934, Bradford is Australia's most experienced domestic insulation company. This experience, combined with our world class manufacturing technology, is your guarantee of quality and performance, all backed by CSR, Australia's leading building materials company.

\* Bradford Gold insulation is independently certified to comply with AS/NZS 4859-1 by Global-Mark



# Odyssey®

## Odyssey®, a smart, energy efficient cooling system for a fresher, more comfortable home

With a smart Odyssey air exchange system you can say goodbye to hot, uncomfortable summer nights and damp, musty winter air.

Just set it and forget it. Odyssey is the innovative and energy efficient way to create a gentle flow of fresh air throughout your home.

Designed and manufactured in Australia, Odyssey uses award-winning wind and motor power hybrid technology that's built to handle the Australian climate.

All you have to do is set your preferred temperature on the easy-to-use touch screen control. Odyssey's sensors will constantly monitor the temperature and humidity inside and outside your home and switch Odyssey on and off to take advantage of natural ventilation and provide comfort at minimal cost.



odyssey.com.au  
1800 332 332

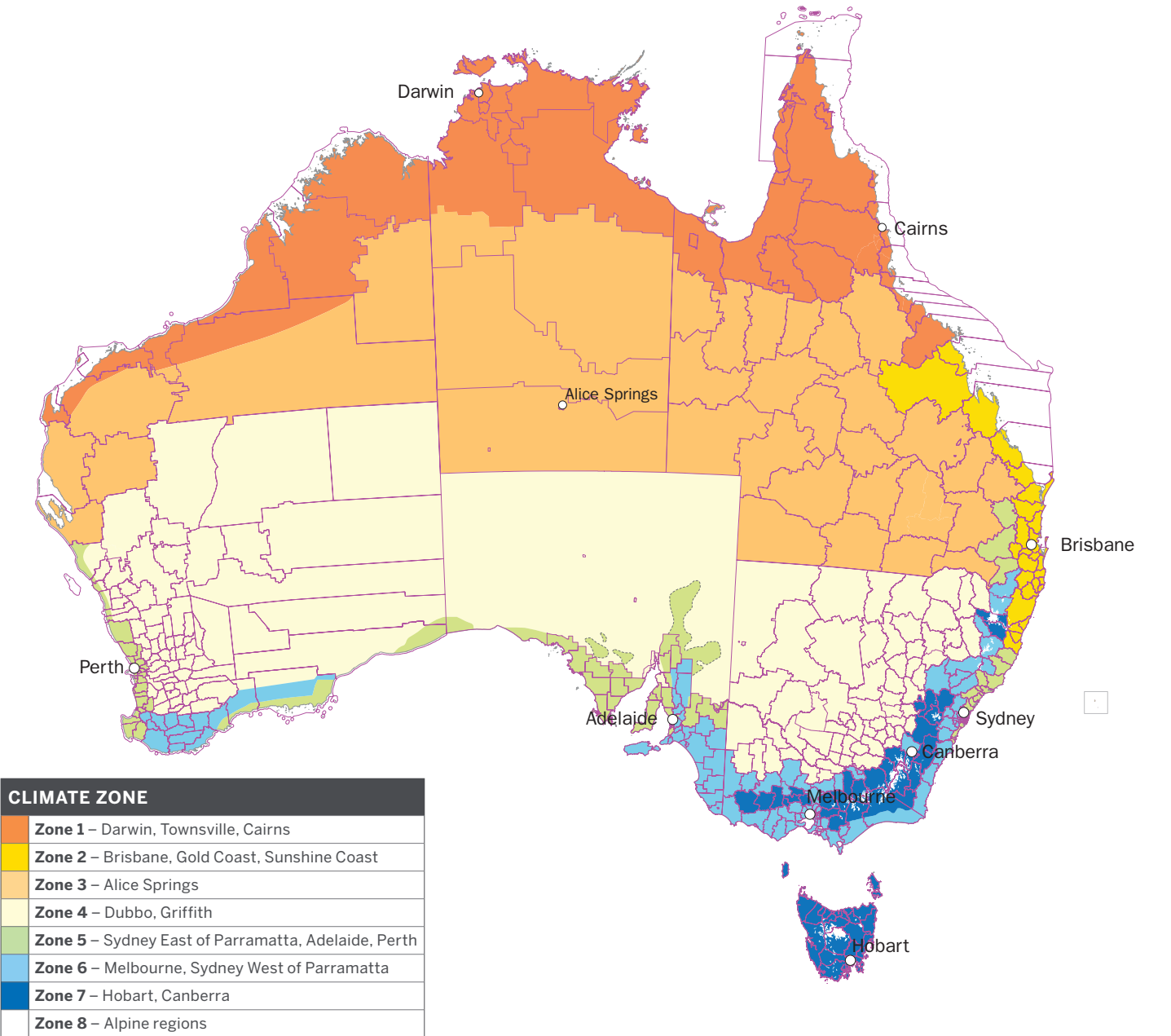
**EDMONDS**  
Technologies for a Sustainable Future

# Australia's smart choice is Gold

## What R-value is best for your home?

The Building Code of Australia (BCA) has outlined energy efficiency provisions for new homes which include the inclusion of insulation in ceilings, walls and some floors. The value of insulation required to meet the deemed-to-satisfy provisions for energy efficiency are intended to be seen as a minimum standard – not best practice. The table on the following page outlines the Bradford Gold products that can be used to meet the 6 star standard in the various climate zones around Australia as shown below.

Note that other provisions within the BCA, such as a reduction in ceiling area insulated due to the installation of recessed down lights or other fixtures, may affect the level of insulation required. Similarly, to meet the deemed-to-satisfy provisions in the BCA other measures for energy efficiency, such as glazing requirements, must also be met.



The values in this table can also be used as a guide when installing insulation into alterations and additions, or retrofitting existing homes with no insulation.

#### MINIMUM R-VALUE OF INSULATION NEEDED TO MEET BCA DEEMED-TO-SATISFY REQUIREMENTS

CLIMATE ZONE	1 & 2 < 300m	2 > 300m, 3, 4, 5, 6, 7	8
<b>CEILINGS</b>			
Dark coloured roof tiles or metal roof (solar absorptance > 0.6) and no sarking	5.0	5.0	6.0
Dark coloured roof tiles (solar absorptance > 0.6) with ES Roof Tile sarking, with VENTS	3.5	5.0	6.0
Light coloured roof tiles or metal roof (solar absorptance between 0.4 – 0.6) and no sarking	5.0	4.1	6.0
Light coloured roof tiles (solar absorptance between 0.4 – 0.6) with ES Roof Tile sarking, with VENTS	3.0	4.1	6.0
Dark coloured metal roof (solar absorptance > 0.6) with ResiWrap sarking, with VENTS	3.5	4.1	6.0
Dark coloured metal roof (solar absorptance > 0.6) with Anticon 55, without VENTS	3.0	3.0	4.1
Light coloured metal roof (solar absorptance between 0.4 – 0.6) with ResiWrap sarking, with or without VENTS	3.5	4.1	6.0
Light or off white/cream coloured metal roof (solar absorptance ≤ 0.4) with Anticon 55, without VENTS	2.0	2.0	4.1
Off white/cream coloured metal roof (solar absorptance ≤ 0.4) and no sarking	4.1	3.5	6.0
Off white/ cream coloured metal roof (solar absorptance ≤ 0.4) with ResiWrap sarking, with or without VENTS	3.0	3.5	6.0
<b>WALLS</b>			
90mm studs, brick veneer with enviroseal Proctorwrap	2.5	2.5	2.5
90mm studs, lightweight cladding with enviroseal Proctorwrap*	2.7	2.7	**

\* If metal framing is used, a thermal break tape must be used over the Proctor fabric.

\*\* Contact Bradford for a solution.

Note that the use of high levels of insulation to meet energy efficiency and comfort requirements can lead to an increased incidence of condensation in walls and attic spaces in cold climates. This is because of the insulation's effectiveness at keeping the warmth within the home but vapour's ability to pass through plasterboard and standard insulation. To address potential condensation problems Bradford recommends the installation of Anticon roofing blanket under metal roofs where the ceiling is insulated. The inclusion of building membranes with a high permeability, such as enviroseal Proctorwrap, and the inclusions of roof ventilators will also help minimise the incidence of condensation. Contact Bradford Technical personnel for detailed information.

# A range to suit every home

There's a full range of Bradford Gold insulation to suit ceilings and walls of any home in Australia.

## BRADFORD GOLD INSULATION TECHNICAL SPECIFICATIONS:

PRODUCT	R-VALUE (m <sup>2</sup> K/W)	DIMENSIONS (mm)	THICKNESS (mm)	m <sup>2</sup> PER PACK	PIECES PER PACK	PRODUCT CODE
Bradford Gold for walls	R1.5	1160 x 430	75mm	11.0	22	111727
	R1.5	1160 x 580	75mm	14.8	22	111726
	R2.0	1160 x 430	90mm	11.0	22	15250
	R2.0	1160 x 580	90mm	12.2	18	15229
	R2.2	1160 x 430	75mm	3.0	6	102283
	R2.2	1160 x 580	75mm	4.0	6	102273
	R2.5	1160 x 430	90mm	4.0	8	101728
	R2.5	1160 x 580	90mm	5.4	8	101727
Bradford Gold Hi-performance for walls	R2.0	1160 x 430	75mm	6.0	12	102284
	R2.0	1160 x 580	75mm	8.1	12	102274
	R2.1	1160 x 430	70mm	3.0	6	102281
	R2.1	1160 x 580	70mm	4.0	6	102272
	R2.7	1160 x 430	90mm	2.5	5	101737
	R2.7	1160 x 580	90mm	3.4	5	101734
	R4.0	1160 x 430	140mm	2.5	5	125450
	R4.0	1160 x 580	140mm	3.4	5	125449
Bradford Gold for ceilings	R2.5	1160 x 430	140mm	8.0	16	111720
	R2.5	1160 x 580	140mm	10.8	16	111719
	R3.0	1160 x 430	165mm	9.0	18	19177
	R3.0	1160 x 580	165mm	12.1	18	111723
	R3.5	1160 x 430	185mm	8.0	16	15241
	R3.5	1160 x 580	185mm	6.7	10	41895
	R4.1	1160 x 430	215mm	5.0	10	111716
	R4.1	1160 x 580	215mm	6.7	10	111715
Bradford Gold Hi-performance for ceilings	R5.0	1160 x 430	240mm	4.0	8	105417
	R5.0	1160 x 580	240mm	5.4	8	105419
	R6.0	1160 x 430	260mm	3.0	6	77871
	R6.0	1160 x 580	260mm	4.0	6	77849
	R7.0	1160 x 430	290mm	2.0	4	122546
	R7.0	1160 x 580	290mm	2.7	4	125545
Bradford Gold for steel frame walls	R1.5	1200 x 450	75mm	11.9	22	127776
	R1.5	1200 x 600	75mm	15.8	22	127781
	R2.0	1200 x 450	90mm	9.7	18	127777
	R2.0	1200 x 600	90mm	13.0	18	127782
	R2.5	1200 x 450	90mm	4.3	8	127778
	R2.5	1200 x 600	90mm	5.8	8	110045
Bradford Gold Hi-performance for steel frame walls	R2.0	1200 x 450	75mm	6.5	12	131367
	R2.0	1200 x 600	75mm	8.6	12	131368
	R2.7	1200 x 450	90mm	2.7	5	127780
	R2.7	1200 x 600	90mm	3.6	5	126512

## Safe formulation

Bradford Gold is Australia's favourite home insulation and glasswool is the most common residential insulation in the world. Bradford Gold insulation is manufactured using FBS-1 bio-soluble formulation which has been assessed as non-hazardous under the National Occupational Health & Safety Commission's guidelines.

For more information call **1300 850 305** or visit **bradfordinsulation.com.au**



**Bradford**<sup>™</sup>  
for smarter environments

CSR Bradford  
Locked Bag 1345 North Ryde BC NSW 1670  
**csrbradford.com.au**

CSR Bradford is a business division of CSR Building Products Limited ABN 55 008 631 356.

The contents of this brochure are copyright protected and may not be reproduced in any form without prior written consent of CSR Bradford. Recommendations and advice regarding the use of the products described in this brochure are to be taken as a guide only, and are given without liability on the part of the company or its employees. We reserve the right to change product specifications without prior notification, please refer to the CSR Bradford website for the latest revision of this document. The purchaser should independently determine the suitability of the product for the intended use and application.

