


Bradford™   
polyair performa™ **XHD**

# High performance insulation systems for new homes



**WALL  
AND ROOF  
SYSTEMS**

- Improve energy efficiency
- Maximise thermal comfort
- Save on heating and cooling costs

**CSR**

# Reduce radiant heat gain with Polyair Performa XHD

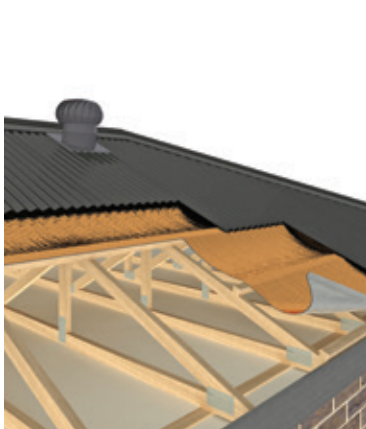


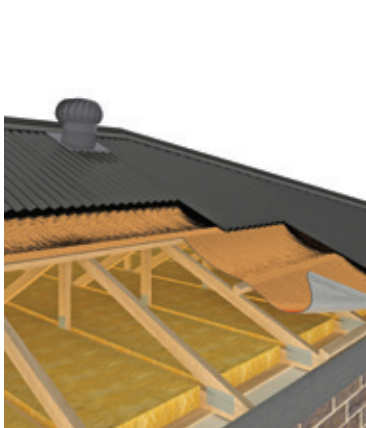
**Polyair Performa XHD is a high grade radiant heat barrier and extra heavy duty sarking in one product. It boosts the thermal performance of roofs and walls while improving the comfort and energy efficiency of a home.**


TYPICAL ROOF SARKING AND WALL WRAP PRODUCTS	POLYAIR PERFORMA XHD
Medium to heavy duty sarking	Multi layered thermo reflective insulation and extra heavy duty sarking in one product
Non-reflective outward face	Special antiglare coated outward facing foil that reflects up to 95% of the sun's radiant heat
Less than 1mm thick	Incorporates an insulating foam core up to 8mm thick
Inward facing reflective foil	Inward facing reflective foil




# Roof Systems

	Metal Roof (Ventilated) System 1A		Metal Roof (Ventilated) System 1B	
	1. Metal roof 22.5° pitch		1. Metal roof 22.5° pitch	
	2. <b>Edmonds WindMaster*</b>		2. <b>Edmonds WindMaster*</b>	
	3. 40mm reflective air gap		3. 40mm reflective air gap	
	4. <b>Polyair Performa 4.0 XHD</b>		4. <b>Polyair Performa 8.0 XHD</b>	
	5. Ventilating attic space		5. Ventilating attic space	
6. 10mm plasterboard		6. 10mm plasterboard		
	R <sub>T</sub> 1.1	R <sub>T</sub> 2.4	R <sub>T</sub> 1.2	R <sub>T</sub> 2.5
	Winter	Summer	Winter	Summer

	Metal Roof (Ventilated) System 2A		Metal Roof (Ventilated) System 2B	
	1. Metal roof 22.5° pitch		1. Metal roof 22.5° pitch	
	2. <b>Edmonds WindMaster*</b>		2. <b>Edmonds WindMaster*</b>	
	3. 40mm reflective air gap		3. 40mm reflective air gap	
	4. <b>Polyair Performa 4.0 XHD</b>		4. <b>Polyair Performa 8.0 XHD</b>	
	5. Ventilating attic space		5. Ventilating attic space	
	6. <b>R4.1 Bradford Gold Ceiling Batts</b>		6. <b>R4.1 Bradford Gold Ceiling Batts</b>	
	7. 10mm plasterboard		7. 10mm plasterboard	
	R <sub>T</sub> 5.6	R <sub>T</sub> 6.4	R <sub>T</sub> 5.7	R <sub>T</sub> 6.5
	Winter	Summer	Winter	Summer

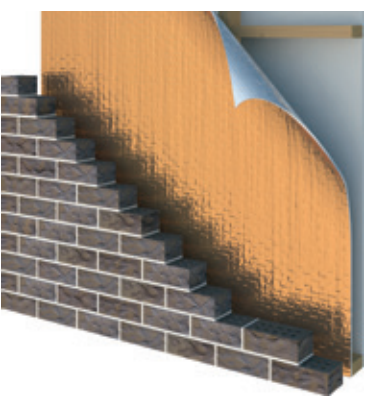
	Tiled Roof (Ventilated) System 1A		Tiled Roof (Ventilated) System 1B	
	1. Tiled roof 22.5° pitch		1. Tiled roof 22.5° pitch	
	2. <b>Edmonds WindMaster*</b>		2. <b>Edmonds WindMaster*</b>	
	3. 40mm reflective air gap		3. 40mm reflective air gap	
	4. <b>Polyair Performa 4.0 XHD</b>		4. <b>Polyair Performa 8.0 XHD</b>	
	5. Ventilating attic space		5. Ventilating attic space	
6. 10mm plasterboard		6. 10mm plasterboard		
	R <sub>T</sub> 1.0	R <sub>T</sub> 2.1	R <sub>T</sub> 1.1	R <sub>T</sub> 2.2
	Winter	Summer	Winter	Summer

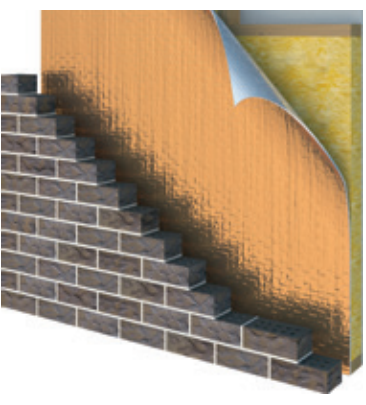
	Tiled Roof (Ventilated) System 2A		Tiled Roof (Ventilated) System 2B	
	1. Tiled roof 22.5° pitch		1. Tiled roof 22.5° pitch	
	2. <b>Edmonds WindMaster*</b>		2. <b>Edmonds WindMaster*</b>	
	3. 40mm reflective air gap		3. 40mm reflective air gap	
	4. <b>Polyair Performa 4.0 XHD</b>		4. <b>Polyair Performa 8.0 XHD</b>	
	5. Ventilating attic space		5. Ventilating attic space	
	6. <b>R4.1 Bradford Gold Ceiling Batts</b>		6. <b>R4.1 Bradford Gold Ceiling Batts</b>	
	7. 10mm plasterboard		7. 10mm plasterboard	
	R <sub>T</sub> 5.4	R <sub>T</sub> 6.1	R <sub>T</sub> 5.5	R <sub>T</sub> 6.2
	Winter	Summer	Winter	Summer

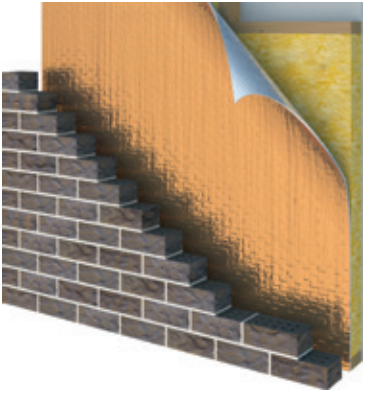
## TOTAL R-VALUE ASSUMPTIONS

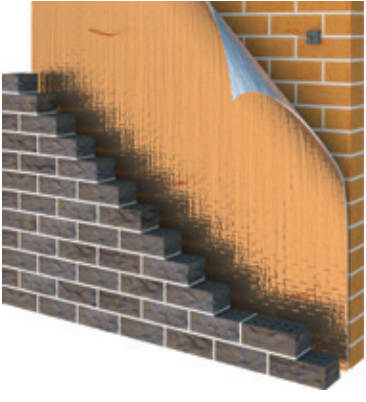
\*Ventilated attic space based on incorporating minimum 2x wind driven ventilators such as Edmonds WindMaster 300mm throat ventilator (total aggregate area 0.14m<sup>2</sup>) in conjunction with Edmonds eave vents of not less than 0.2% of the plan ceiling area. Refer to explanation in the BCA 3.12.1.2(b)(ii). The contribution of Polyair Performa XHD to a Total R-Value depends on the installation and environmental conditions. The Total R-Value will be reduced in the event of the accumulation of dust on upward facing surfaces and in those cavities that are ventilated. Thermal calculations are based on Australian parameters and in accordance with AS/NZS 4859.1:2002/Amdt.1. *Continued over page...*

# Wall Systems

	Brick Veneer System 1A		Brick Veneer System 1B	
	1. 110mm external brick wall 2. 35mm reflective air gap <b>3. Polyair Performa 4.0 XHD</b> 4. 90mm reflective air gap 5. 10mm plasterboard		1. 110mm external brick wall 2. 35mm reflective air gap <b>3. Polyair Performa 8.0 XHD</b> 4. 90mm reflective air gap 5. 10mm plasterboard	
	R <sub>T</sub> 2.0	R <sub>T</sub> 1.9	R <sub>T</sub> 2.1	R <sub>T</sub> 2.0
	Winter	Summer	Winter	Summer

	Brick Veneer System 2A		Brick Veneer System 2B	
	1. 110mm external brick wall 2. 35mm reflective air gap <b>3. Polyair Performa 4.0 XHD</b> <b>4. R1.5 Bradford Gold Wall Batt</b> 5. 10mm plasterboard		1. 110mm external brick wall 2. 35mm reflective air gap <b>3. Polyair Performa 8.0 XHD</b> <b>4. R1.5 Bradford Gold Wall Batt</b> 5. 10mm plasterboard	
	R <sub>T</sub> 3.0	R <sub>T</sub> 2.7	R <sub>T</sub> 3.1	R <sub>T</sub> 2.8
	Winter	Summer	Winter	Summer

	Brick Veneer System 3A		Brick Veneer System 3B	
	1. 110mm external brick wall 2. 35mm reflective air gap <b>3. Polyair Performa 4.0 XHD</b> <b>4. R2.5 Bradford Gold Wall Batts</b> 5. 10mm plasterboard		1. 110mm external brick wall 2. 35mm reflective air gap <b>3. Polyair Performa 8.0 XHD</b> <b>4. R2.5 Bradford Gold Wall Batts</b> 5. 10mm plasterboard	
	R <sub>T</sub> 4.0	R <sub>T</sub> 3.7	R <sub>T</sub> 4.1	R <sub>T</sub> 3.8
	Winter	Summer	Winter	Summer

	Brick Cavity System 1A		Brick Cavity System 1B	
	1. 110mm external brick wall 2. 20mm reflective air gap** <b>3. Polyair Performa 4.0 XHD</b> 4. 20mm reflective air gap 5. 110mm internal brick wall 6. 10mm plasterboard or render		1. 110mm external brick wall 2. 20mm reflective air gap** <b>3. Polyair Performa 8.0 XHD</b> 4. 20mm reflective air gap 5. 110mm internal brick wall 6. 10mm plasterboard or render	
	R <sub>T</sub> 2.0	R <sub>T</sub> 1.9	R <sub>T</sub> 2.1	R <sub>T</sub> 2.0
	Winter	Summer	Winter	Summer

## TOTAL R-VALUE ASSUMPTIONS

*continued:* The contribution of Polyair Performa XHD towards the Total R-Value depends on installation and environmental conditions. For upward facing surfaces of horizontal or sloping reflective insulation in non-vented cavities where no special precautions for prevention of dust ingress have been included, the Total R-Value is calculated based on an emittance for the case of dust cover in accordance with AS/NZS4859.1 Paragraph K3.2(a)(ii), unless otherwise stated. For calculation purposes, the air gaps are assumed as still parallel air gaps unless otherwise stated and the membrane continuous. \*\* Refer to brick cavity alternative solution report for installation requirements.

# Product Performance



**Polyair Performa XHD is a multi layered thermo reflective insulation and extra heavy duty sarking in one product. Its special antiglare coated foil reflects up to 95% of the sun's radiant heat while the foam inner core and inward facing foil reduces heat transfer through the product.**

Polyair Performa XHD is manufactured in Australia under the quality management system of ISO 9001:2008 and the environmental management system of ISO 14001:2004. The products are manufactured to be extra heavy duty and are designed specifically for the hot Australian climate.



## POLYAIR PERFORMA XHD CLASSIFICATION

PROPERTY	REFERENCE	RESULT
Emittance	AS/NZS 4201.5:1994/ASTM E408	Double-sided reflective Antiglare (outer face) E0.05 Silver (inner face) E0.03
Material thermal resistance	ASTM C518 as part of AS/NZS 4859.1:2002/Amdt.1	R <sub>m</sub> 0.10 Performa 4.0 XHD R <sub>m</sub> 0.20 Performa 8.0 XHD
Duty	Table 1 – AS/NZS 4200.1:1994	Extra heavy duty
Vapour barrier	ASTM E96	Medium
Water barrier	AS/NZS 4201.4:1994	High
Absorbency	AS/NZS 4201.6:1994	Unclassified
Shrinkage	AS/NZS 4201.3:1994	<0.5%
Resistance to dry delamination	AS/NZS 4201.1:1994	Pass
Resistance to wet delamination	AS/NZS 4201.2:1994	Pass
Surface corrosion	AS/NZS 4859.1:2002	Pass
Flammability index	AS 1530.2	Low (≤5)
Early fire hazard Indices	AS/NZS 1530.3	
Ignitability	AS/NZS 1530.3	0
Spread of flame	AS/NZS 1530.3	0
Heat evolved	AS/NZS 1530.3	0
Smoke developed	AS/NZS 1530.3	2

## VENTILATION & CONDENSATION


Roof space ventilation is recommended for use in conjunction with Polyair to improve summer heat flow performance and assist in the management of condensation in winter. Further information on condensation management can be found on the Bradford website and in cold climates the Enviroseal range of vapour permeable products should be considered to further reduce condensation risk. Information on ventilation can be found at [edmonds.com.au](http://edmonds.com.au)

# Polyair Performa XHD range

**REFLECTIVE INSULATION** (RATED AS REFLECTIVE INSULATION AND SARKING)

AS/NZS 4859.1:2002/amdt 1. Section 9 – Group 1 type reflective insulation product.

## SPECIFICATION TABLE

 THICKNESS (mm)	ROLL SIZE (m x mm)	m <sup>2</sup> PER ROLL (m <sup>2</sup> )	ROLL DIAMETER (mm)	ROLL WEIGHT (kg)	PRODUCT CODE	
Performa 4.0 XHD	4	22.25 x 1350	30	410	13	152161
Performa 4.0 XHD	4	40 x 1350	54	560	19	152429
Performa 8.0 XHD	8	22.25 x 1350	30	520	16	152472

ACCESSORIES	WIDTH (mm)	LENGTH (m)	GRADE	REFERENCE	PRODUCT CODE
Reinforced aluminium foil tape	48	50	Premium	493	17366
	72	50	Premium	493	17369

## AUSTRALIA'S LEADING INSULATION COMPANY BACKED BY AN AUSTRALIAN ICON


CSR Bradford has been leading the Australian insulation industry for over 80 years and now extends its comprehensive range of products with Polyair thermo reflective insulation.

CSR Bradford is backed by CSR Building Products Ltd, which is the name behind some of the market's most trusted and recognised building material brands such as Gyprock™ plasterboard, PGH™ bricks and pavers, Monier™ roof tiles and Viridian™ glass to name a few.

The strength of the CSR brand in the Australian market provides architects, builders and home owners with a high level of confidence in the building materials and systems that CSR supplies.

## WANT TO KNOW MORE?

Visit [reflectiveinsulation.com.au](http://reflectiveinsulation.com.au) or call CSR Bradford on **1300 850 305**

 Find us on Facebook by searching: **CSR Bradford**



CSR Bradford Locked Bag 1345 North Ryde BC NSW 1670  
[bradfordinsulation.com.au](http://bradfordinsulation.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 prior to use. The purchaser should independently determine the suitability of the product for the intended use and application.

