

## THERMO REFLECTIVE PRODUCTS

### PRODUCT DESCRIPTION

Polyair Performa is classified under AS/NZS 4859.1:2002/Amdt.1 as a reflective insulation material and falls into the Group 5 category of section 9.2 of the standard. Polyair Performa is manufactured with two external layers of reflective aluminium foils with the external layer coated in a special antiglare that can reflect up to 91% of the sun's radiant heat. Polyair Performa incorporates an internal foam structure that reduces heat transfer from the antiglare outer foil surface to the inner silver foil surface. Polyair Performa is available in 4mm and 7mm thicknesses.

### 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	4	20 x 1350	27	380	9	118113
Performa 4.0	4	40 x 1350	54	500	14	123974
Performa 7.0	7	30 x 1350	40.5	600	18	123691

### APPLICATIONS

Polyair Performa can be used in a range of BCA classified buildings and in BAL effected regions. Ideal applications include steel roofing and steel wall cladding in class 7b warehouses, class 7b industrial sheds and class 8 work sheds. For advice on the suitability of these products for your project contact the Bradford technical services team on 1300 850 305.

### INSTALLATION GUIDANCE

- Install with antiglare surface facing outwards.
- Sealing overlaps, penetrations and damaged areas with a reinforced aluminium foil tape (or approved self-adhesive strip) is recommended especially when aiming to achieve a consistent: stated thermal performance, seal against draughts, seal against vapour infiltration, seal against water entry into the building.
- Overlaps should be a minimum 50mm when a reinforced aluminium foil tape (or approved self-adhesive strip) is used.
- Overlaps should be a minimum of 150mm if no tape is used.
- Follow all relevant OHS and statutory regulations – eye protection from sun glare is recommended.



High grade  
radiant heat  
barriers

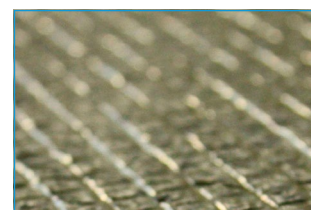
# Polyair Performa – Thermo Reflective Products

## CLASSIFICATIONS

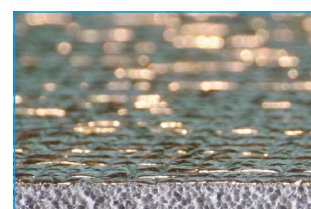
PROPERTY	REFERENCE	RESULT
Emittance	AS/NZS 4201.5:1994/ASTM E408	Double-sided reflective Antiglare Face E0.09 Silver Face E0.03
Material thermal resistance	ASTM C518	R <sub>m</sub> 0.1 Performa 4.0 R <sub>m</sub> 0.2 Performa 7.0
Vapour Barrier	ASTM E96	High
Resistance to dry delamination	AS/NZS 4201.1:1994	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	0 - 1



Performa 54m² roll



Performa exterior face



Performa inner core

TOTAL R-VALUE PERFORMANCE		
Flat Metal Roof (type 1)*	Flat Metal Roof (type 2)**	Flat Metal Roof (type 3)***
Heat flow in (summer) = R <sub>t</sub> 3.2	Heat flow in (summer) = R <sub>t</sub> 3.3	Heat flow in (summer) = R <sub>t</sub> 3.5
Heat flow out (winter) = R <sub>t</sub> 1.3	Heat flow out (winter) = R <sub>t</sub> 1.2	Heat flow out (winter) = R <sub>t</sub> 1.3

\*Flat metal roof (type 1) system comprises of: metal roof 1°, 15mm airspace (generic spacer), Polyair Performa 7.0 (with slight dust cover), min 300mm non-ventilated airspace, 13mm plasterboard ceiling. \*\*Flat metal roof (type 2) system comprises of: metal roof 1°, 35mm airspace (generic spacer), Polyair Performa 4.0 (with slight dust cover), min 300mm non-ventilated airspace, 13mm plasterboard ceiling. \*\*\*Flat metal roof (type 3) system comprises of: metal roof 1°, 60mm airspace (Ashgrid spacer), Polyair Performa 4.0 (with slight dust cover), min 300mm non-ventilated airspace, 13mm plasterboard ceiling.

## THERMAL BREAK

The BCA Volumes 1 and 2 outline the requirement to reduce thermal bridging of direct-fix claddings\* onto metal frames by installing a thermal break with an R-Value of not less than R<sub>m</sub>0.2, positioned between the lightweight external cladding\* and the primary metal framing. Polyair Performa 7.0 is a continuous reflective insulation material and achieves an uncompressed R-Value of R<sub>m</sub>0.2 in accordance with AS/NZS4859.1, which is also a requirement of the BCA.

\*Cladding includes: metal sheeting, weatherboards, fibre-cement or similar

## TOTAL R-VALUE ASSUMPTIONS

The contribution of this product 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. The contribution of this product 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 slight 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.

## SAFETY INSTRUCTIONS

Polyair is safe to handle, no protective clothing, gloves or mask is required. It is the responsibility of the installer to observe and comply with all relevant OHS and statutory regulations. Read electrical safety warning (below).

## ELECTRICAL SAFETY WARNING

This product contains aluminium foil which conducts electricity. To avoid electrocution, care should be taken to ensure that this product or conductive fasteners used to secure this product, do not come into contact or close proximity with electrical wiring during installation or use. This product should not be installed in an existing structure in a horizontal orientation such as a ceiling or sub-floor application due to the presence of electrical wiring in the framing.



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