

# RESIDENTIAL PITCHED METAL ROOF (UNVENTILATED) TOTAL R2.7 (HEAT FLOW DOWN)

**Fletcher Insulation** manufactures **Permastop** building blankets in Australia under ISO 9001 quality manufacturing standards, is supplied free of material defects and has Zero Ozone Depleting Potential in both its composition and manufacturing process.

Fletcher Insulation Permastop foil faced blankets have two components:

- FBS-1 Bio-Soluble glasswool blanket in various thicknesses that is Non-Combustible when tested to AS1530.1 and is independently certified by Good Environmental Choice Australia.
- Sisalation® in light, medium or heavy duties that is adhered to cover one side of the blanket.

Permastop building blankets achieve the following Declared Material R-values at the following thicknesses when tested at 23°C in accordance with AS/NZ 4859.1:

Blanket Thickness	Material R-value
55mm	R1.3
<b>60mm</b>	<b>R1.4</b>
75mm	R1.8
100mm	R2.5
130mm	R3.0

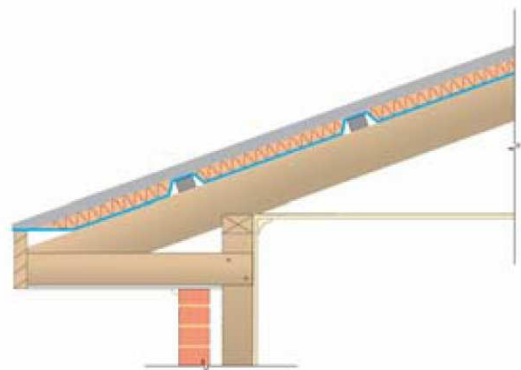
The thermal performance of the reflective air space will vary depending on the installation method. The BCA Energy Efficiency requirements take into account different Climate Zones around Australia that determine if a building needs to be designed for a 'Summer' (heat flow down) condition, or for a 'Winter' (heat flow up) condition.

## Application: Metal roof between 18° and 35° pitch with flat plasterboard ceiling

Permastop 60mm draped over roof battens, allowing for blanket recovery to nominal thickness between battens. Foil side of Permastop facing into the unventilated airspace below.

Calculations based on summer conditions with ambient air temperature at 36°C and internal 24°C.

Element Description:	SUMMER
Outdoor Air Film	0.04
Metal Roof	0.00
Permastop 60mm (R1.4)	1.31
Unventilated Attic Space	1.09
10mm Plasterboard	0.06
Indoor Air-Film (Non-Reflective Surface)	0.16
<b>Total R-Value</b>	<b>2.7</b>



**Compliance:** This performance report is based on thermal resistance tests and calculations conducted in accordance with AS/NZS 4859.1 (2002) – Amendment 1 (2006).