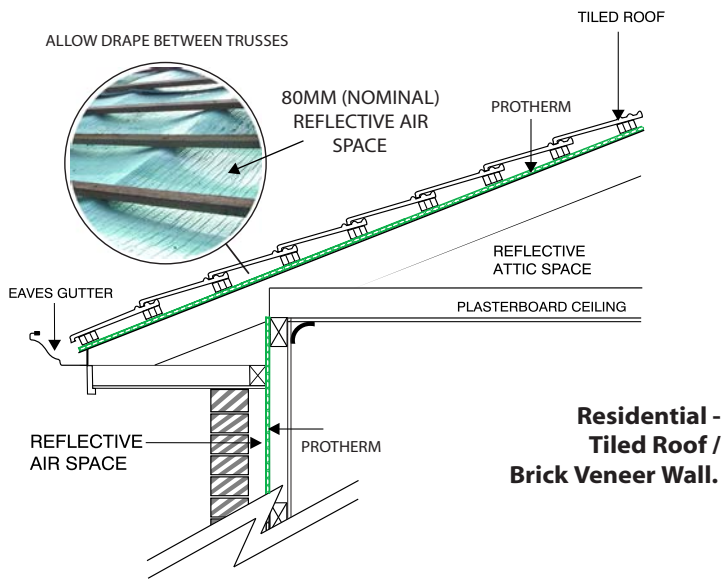
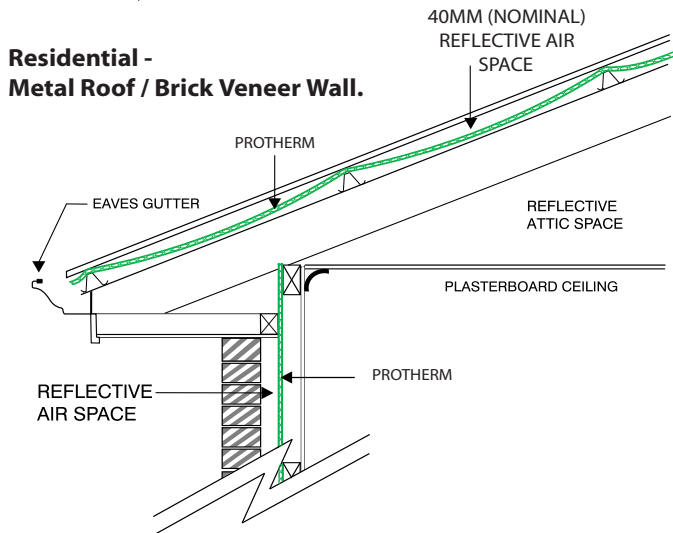


Protherm

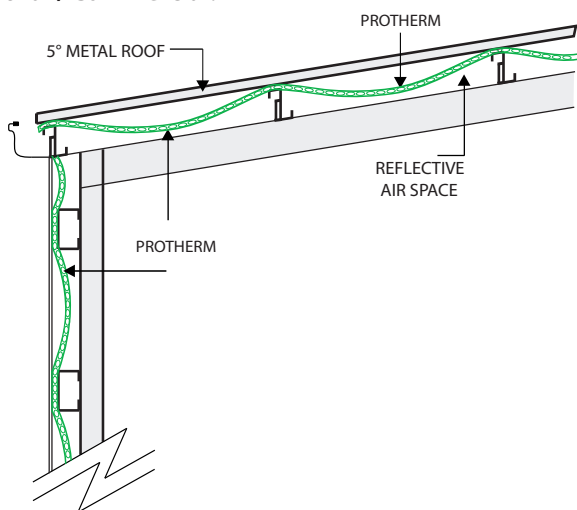


Residential - Tiled Roof / Brick Veneer Wall.



Residential - Metal Roof / Brick Veneer Wall.

Industrial / Commercial.



R-Values extracted from Reports by Gilmore Engineers - e3k

10-07-2007

Keen Lee - Dip (Mech), B.E. (Mech - Hons), MBA
Research & Product Development Manager
Protherm Building Insulation

Reflecta - Shield

Code	RS1154
Foil Emittance	0.02
Roll Size	1.5m x 20m (30m ²)
Roll Diameter	330mm
Product Thickness	4.4mm
Roll Weight	13.0kg

R - Values m².K/W (metric)

Metal Roof (residential)

		Summer	Winter
18° Ventilated	40mm a/s	2.6	1.2
18° Unventilated	40mm a/s	2.3	1.4

Commercial Roof

5° Metal with Ceiling	40/90mm a/s	2.6	1.3
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Tile Roof

18° Ventilated	80mm a/s	2.7	1.2
18° Unventilated	80mm a/s	2.4	1.4

Walls

Vinyl Cladding	20/90mm a/s	2.2	2.2
Weatherboard	20/90mm a/s	1.7	1.7
Brick Veneer *	90/50mm a/s	1.9	1.9
Metal	25/90mm a/s	1.7	1.7
Double Brick	20/20mm a/s	1.7	1.7
Double Brick *	90mm Stud and Plaster	2.2	2.2
Concrete Block	40/20mm a/s	1.8	1.8
Concrete Panel	40/20mm a/s	1.7	1.7
Reverse Brick Veneer	50/90mm a/s	1.8	1.8

Floor

Timber Floor (closed in)	40mm a/s	1.1	2.1
Concrete Floor (closed in)	40mm a/s	1.1	2.1

Ceiling (Retrofit 90mm above Ceiling, Metal & Tile Roofs)

18° Ventilated	90mm a/s	2.9	1.2
18° Unventilated	90mm a/s	2.6	1.4

(a/s = Airspace)

(* = Calculations by R&D Services)



10-07-2007

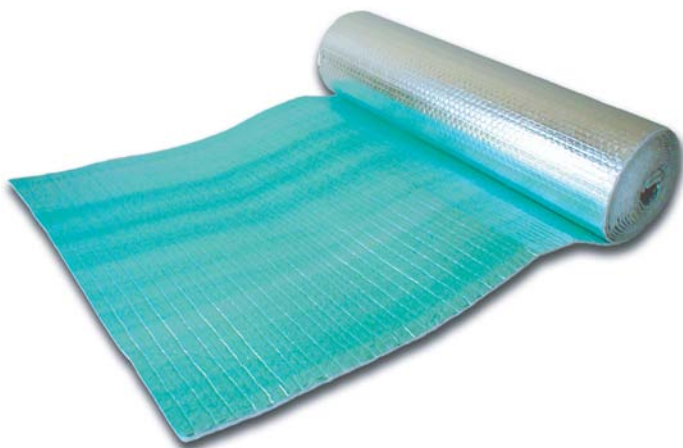
Dr Ray Hope - B.E. (Mech - Hons), Ph.D
Vice - President
Gilmore Engineers - e3k



Product Testing

Reflecta-Shield

Thermal Performance	AS/NZS 4859.1 - 2002
Corrosion & Oxidisation Resistance	Patented (Green Side)
Anti - Slip	Patented (Green Side)
Flammability	AS/NZS 1530.2 - 1993 ≤ 5
Ignitability	AS/NZS 1530.3 - 1999
Spread of Flame	AS/NZS 1530.3 - 1999
Heat Evolved	AS/NZS 1530.3 - 1999
Smoke Developed	AS/NZS 1530.3 - 1999
Product Emittance (Green Side)	0.1
Product Emittance (Silver Side)	0.05
Textile Testing	Extra Heavy Duty
Dry Delamination	AS/NZS 4201.1 - 1994
Wet Delamination	AS/NZS 4201.2 - 1994
Shrinkage	AS/NZS 4201.3 - 1994
Water Barrier	AS/NZS 4201.4 - 1994
Water Absorbency	AS/NZS 4201.6 - 1994
Vapour Transmission	ASTM . E96 - 2000
Edge Tear	AS 4200.1 - 1994
Burst Strength	AS 3706.4 - 2001
Acoustic	ISO 354-2003 AS ISO 11654-2002 AS 1191-2002 AS/NZS ISO 717.1:2004



For Further Information

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