

FACT SHEET

Insulation and R Value of Mitten Vinyl Cladding Products

Mitten Vinyl Cladding can **boost the energy efficiency** of a home, and has environmental benefits in its use and manufacture. With a choice of 15mm, 20mm or 30mm polystyrene foam backing on the vinyl cladding, the home benefits from **increased insulation** and the range of temperature variation inside the building is greatly reduced, making it **cooler in summer and warmer in winter**. This will lead to significant energy **cost savings** and environmental benefits, including a reduction in carbon footprint and lower power consumption to control temperature inside the home. The result will be a more comfortable home and **lower energy bills**.

When installed in accordance with Australian Standards, Mitten Vinyl Cladding will add significantly to the insulation of a home. Trapped air is an excellent insulator, as long as the air is not moving. This principal of insulation is used in double glazed windows and the Thermos® flask – two good examples of how **trapped air works as an insulator** to keep what's inside warm or cold. The correct installation of **insulated vinyl cladding** over existing timber or fibre cement (fibro) walls, or onto new framework with correct underlay, will create an air gap inside the wall which will act as an excellent insulator. This can be further improved by the use of in-wall insulation such as fibreglass batts, and a wall wrap underlay such as Levelwall.

Polystyrene foam is a lightweight and cost effective form of insulation, providing **significant savings in energy costs**. The recommended installation of foam backed vinyl cladding over framework with an underlay of plywood or fibre cement sheeting achieves an R value of approximately R1.5 with the air gap created by 90mm framework. This R value can be increased by the use of in-wall insulation such as fibreglass batts between the studs when access is available - in new construction, or interior renovations where wall linings will be replaced. An **R value of 3 should easily be achieved** if these principles are adhered to.

The great advantage of **foam-backed insulated vinyl cladding** from Mitten Vinyl Australia is being able to **add a layer of insulation to the entire home** without any demolition or reconstruction, resulting in higher insulation levels and energy savings year after year. This is good news for the homeowner, and for the planet!

