

# ACOUSTIC & THERMAL INSULATION FOR RESIDENTIAL METAL ROOFS

Optimise the performance of your metal roof with  
Bradford Anticon insulation





Insulation is proven to be one of the most effective ways of controlling temperature, reducing unwanted noise and mitigating condensation risk in a home. Bradford Anticon combines two components in a single product to provide these benefits. The insulation blanket interrupts the passage of heat and rain noise through your roof. At the same time, the reflective foil restricts the passage of moisture to cold surfaces, reducing your risk of condensation.

# THE KEY PERFORMANCE BENEFITS OF **BRADFORD ANTICON**

## 1. THERMAL INSULATION FOR ENERGY EFFICIENCY AND COMFORT

Most common building materials such as bricks, roof tiles and metal roofing allow most of the heat they receive to pass through them. This is where insulation plays an important part in improving the energy efficiency of a home and in turn, helping to create a comfortable living environment.

Installing Bradford Anticon under your metal roof reduces the heat flow through that roof, contributing to the increased thermal performance and energy efficiency of your home.

In winter, up to 35% of a home's heat is lost through the roof and up to 25% can be lost through the walls. In summer heat flows at similar rates into the home.

### Control heat transfer with insulation

Heat transfer in the home occurs in three ways.



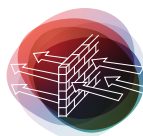
#### Radiation

Radiation from the sun and hot surfaces.



#### Warm Air

Convection where warm air displaces cool air.



#### Heat

Conduction where heat is radiated from materials in the home.

\*Source: Sustainability Victoria (2020) Energy Smart Housing Manual

Insulation in the roof, ceiling, walls and floors effectively helps control all three heat transfers in the home.

## 2. IMPROVE THE ACOUSTIC PERFORMANCE OF YOUR ROOF

The installation of Anticon directly under your metal roof sheet can provide a damping effect to reduce impact noise from rain or hail. Although the sound of gentle rain can be soothing, heavy rain or hail on a metal roof can be noisy and annoying.

Installing Anticon 60 can reduce the sound power level of heavy rain by over 7%\*, improving the comfort of your living environment as well as providing the thermal and condensation benefits that Bradford Anticon is renowned for.

The addition of Bradford Gold ceiling batts or SoundScreen can also further improve both the acoustic and thermal performance.

\*Estimated rainfall sound power level prediction, Lw dB reduction based on 0.48BMT Custom Orb® with 'heavy' rainfall over 10m<sup>2</sup>



### 3. CONDENSATION CONTROL

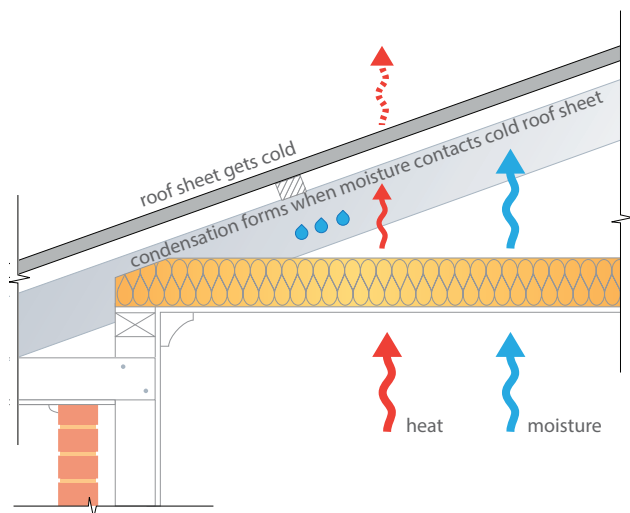
Installing Bradford Anticon can reduce the risk of condensation formation under your metal roof which can cause damage to plasterboard ceilings and mould growth.

The use of high levels of insulation on only the ceiling to meet energy efficiency and comfort requirements can unfortunately lead to an increased incidence of condensation formation in roof spaces in climates with cold overnight temperatures. Although ceiling insulation is very effective at keeping the warmth within the home, it is unable to stop vapour (moisture within the air) from the home passing through the plasterboard and bulk insulation.

When this vapour contacts a cold surface such as an un-insulated metal roof sheet, condensation droplets can form beneath the roof sheet in the roof space – similar to

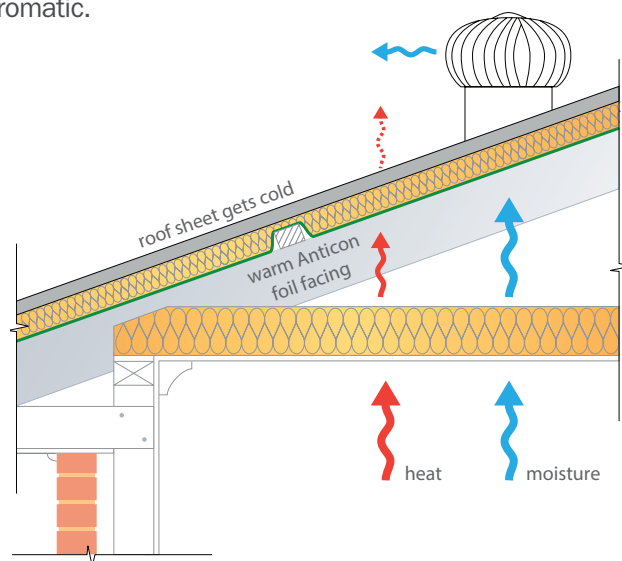
the droplets on the outside of a bottle removed from the fridge on a warm day. To help address condensation formation, 'Anticon' positioned directly against the underside of the metal roof sheet helps reduce the passage of moisture in the air from reaching the cold metal roof sheet.

By insulating the metal roof, the temperature of the Anticon foil facing does not get as cold which reduces the risk of condensation forming. For roofs in very cold regions or those homes where moist air enters the roof space, it is important to tape the foil overlap and remove the heavy, moisture laden air from the attic space using a suitable ventilation system, such as an Bradford Windmaster or Airomatic.



#### **CEILING BATTS ONLY – improved energy efficiency but potential for condensation**

Rising heat from inside the building entering the roof space is reduced by the ceiling batts so the roof sheet cools, potentially allowing condensation to form when the rising moist air contacts the underside of the cold roof sheet.



#### **CEILING BATTS PLUS ANTICON – best solution for energy efficiency and condensation control**

Rising heat escaping from inside the building is further reduced by the Anticon and the internal foil face of the Anticon is insulated from the cold metal roof sheet by bulk insulation. This combination reduces the risk of condensation formation whilst improving energy efficiency.



### 4. FIRE PERFORMANCE – BAL

Anticon is an ideal product for installation in metal clad roofs in bushfire areas. Anticon's glasswool composition means that it can be used as an integral part of an AS 3959 compliant BAL roofing system up to a rating of BAL-40. Anticon's bulk insulation blanket achieves a very high fire hazard property rating in accordance with AS/ NZS1530.3 (0,0,0,1) and the reflective foil facing meets the BCA flammability index requirement of  $\leq 5$ .

## 5. SUSTAINABILITY & HEALTH

CSR Bradford confirms that our glasswool is manufactured from up to 80% recycled glass content, derived from 100% recycled post-consumer glass used beverage containers (UBC), and waste flat glass, depending on availability. The remaining glass is made primarily from sand.

In addition, our glasswool plants recycle all water used in the manufacturing process and our glasswool insulation uses no ozone depleting products (ODP) in manufacture, are low allergen, and have low embodied energy. CSR Bradford glasswool is amongst the world's most sustainable building products.

CSR Bradford insulation is manufactured using the latest FBS-1 bio-soluble formulation and is classified as non-hazardous by Safe Work Australia and aligns with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).



### The sensitive choice® in insulation

CSR Bradford is the only approved insulation partner of the National Asthma Council Australia's Sensitive Choice® program. Bradford Anticon and Gold Ceiling Batts are a suitable choice for use in homes of people with asthma or allergies.

## ANTICON FACING OPTIONS

Bradford Anticon is available with both a light duty and medium duty foil facing. The light duty foil facing is a cost effective and compliant solution for the majority of applications. If you need a more resilient finish or if the finish will be exposed to the living space, upgrading to a medium duty foil facing can give you a little extra peace of mind.

For the best puncture and tear resistance in the range, use Anticon Tuff. Anticon Tuff is faced with a polymer weave and foil laminate to provide an improved surface finish durability.

The only opportunity to install Anticon is while your new roof is being installed, before the roof cladding goes on. Include Anticon into your roof design early in the planning process, well before construction commences, to ensure you enjoy the additional acoustic, thermal and condensation control of an Anticon insulation roof.

| Product Name       | Base Blanket R-Value $R_M$ | Nominal Thickness (mm) | Dimensions (m x mm) | Area per pack (m <sup>2</sup> ) | Product Code |
|--------------------|----------------------------|------------------------|---------------------|---------------------------------|--------------|
| Anticon 60 LD      | R1.3                       | 60                     | 15 x 1200           | 18                              | 15417        |
| Anticon 80 LD      | R1.8                       | 80                     | 15 x 1200           | 18                              | 16072        |
| Anticon 60 MD      | R1.3                       | 60                     | 15 x 1200           | 18                              | 15630        |
| Anticon 80 MD      | R1.8                       | 80                     | 15 x 1200           | 18                              | 15696        |
| Anticon Tuff 60 MD | R1.3                       | 60                     | 15 x 1200           | 18                              | 118007       |
| Anticon Tuff 80 MD | R1.8                       | 80                     | 15 x 1200           | 18                              | 118309       |

For more information call **1300 887 160** or visit **bradfordinsulation.com.au**



CSR Bradford Locked Bag 1345 North Ryde BC NSW 1670  
[bradfordinsulation.com.au](http://bradfordinsulation.com.au)

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