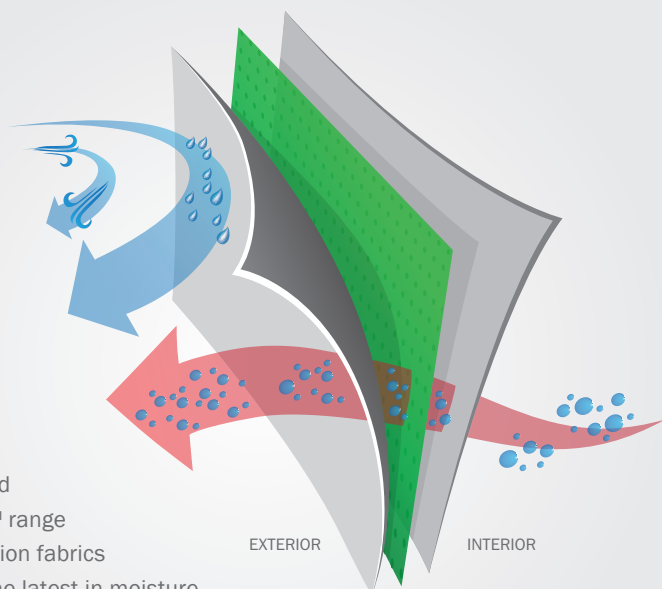


VAPOUR PERMEABLE CONSTRUCTION FABRICS

Healthy buildings control condensation



PROTECTION AND PERMEABILITY



The Bradford Enviroseal™ range of construction fabrics represent the latest in moisture control, vapour permeable water tight membranes. These products are designed to reduce the risk of condensation forming on surfaces within the building envelope where it is undesirable. While allowing moisture to pass outward from the inside of the building, these sophisticated membranes prevent the ingress of water and dust from the outside environment both during and after construction.

BENEFITS DURING CONSTRUCTION

- Protects the frame and roof structure from the elements prior to the application of external cladding.
- Improves on-site work flow efficiency by allowing internal trades to commence work before the external cladding is applied.

BENEFITS AFTER CONSTRUCTION

- Forms a condensation management surface beyond the building frame, reducing the risk of moisture and mould related issues compromising the structural integrity and health of the occupants.
- Improves air tightness which in turn improves energy efficiency, but still allows vapour to escape, reducing the risk of condensation forming on the inside of the building frame.
- Protects the interior of the building from moisture and dust ingress from the outside environment.

UNDERSTANDING CONDENSATION RISK

Long perceived to be immune from condensation problems, Australia has seen an increase in the occurrence and severity of condensation problems across diverse climate zones due to changes in building design and increases in energy efficiency targets.

ENERGY EFFICIENT CONSTRUCTION INCREASES CONDENSATION RISK

The drive for energy efficient buildings has resulted in higher levels of insulation in the roof space and walls, as well as reduced air leakage due to modern energy conscious building practices. As a result, this has dramatically changed the temperature and moisture balance within buildings, which has changed the location and frequency of where and when condensation is likely to form. When the surface where condensation wants to form shifts from outside the building to inside the building, condensation can potentially cause damage to the building frame, cladding and insulation, whilst allowing mould to grow.

“ Insulation, whilst keeping some surfaces warm, also keeps other surfaces cold. Sealing up the building can also prevent the safe passage of water vapour, resulting in potentially damaging condensation forming on these cold impermeable surfaces. ”

ABCB, 'Condensation In Buildings', 2011

The possible consequences of condensation and the subsequent high humidity environment include;

- **Health Risks:** Unseen mould growth behind wall linings and external cladding can be a health risk to the occupants, particularly the young or elderly.
- **Visual Deterioration:** Deflection or staining of plasterboard linings as a result of moisture trapped behind the linings can cause ugly stains and swelling of standard plasterboard.
- **Structural Decay:** Moisture trapped within the structure can result in long term corrosion of metal structures, timber rot, loosening of nails as timber swells, and cladding rot or swelling which can result in costly rectification work.
- **Energy Efficiency:** A reduction in the building's energy efficiency can occur due to moisture saturation of the insulation, which can result in loss of thermal performance.

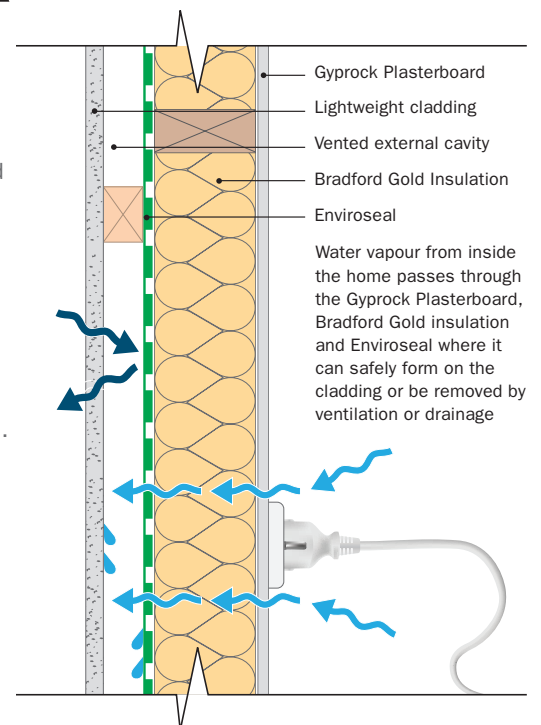
CONTROLLING CONDENSATION RISK

THE CONDENSATION SOLUTION – LET YOUR BUILDING BREATHE

Unlike traditional foil faced sarking materials, the high water vapour permeability of the Bradford Enviroseal™ range of vapour permeable membranes allow for the controlled escape of moisture from within a building structure whilst restricting the ingress of liquid water and dust from the outside environment.

Controlling condensation is not necessarily about stopping condensation formation on cold surfaces, it's about controlling where on the building envelope it forms. Ideally condensation should form on the outside of the building structure but as insulation becomes more effective at keeping the warmth inside the building envelope, the position of this condensation surface is changing. Enviroseal™ membranes allow the condensation surface to be designed into the building envelope and controlled.

Positioned on the external side of the building frame, with the cladding spaced from the membrane to allow a drainage path for moisture, Enviroseal™ membranes position the condensation surface beyond the building frame and insulation. With exceptionally high levels of vapour permeability combined with high water hold-out when joints are taped and lapped, the Enviroseal™ range allows moisture inside the building to escape without compromising airtight designs.



TECHNICAL SUPPORT

CSR Bradford offer a range of technical services including condensation modelling for project or climate specific applications, as well as general product and project technical support.

For more information please contact CSR Bradford on **1300 354 044** or visit www.bradfordinsulation.com.au



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