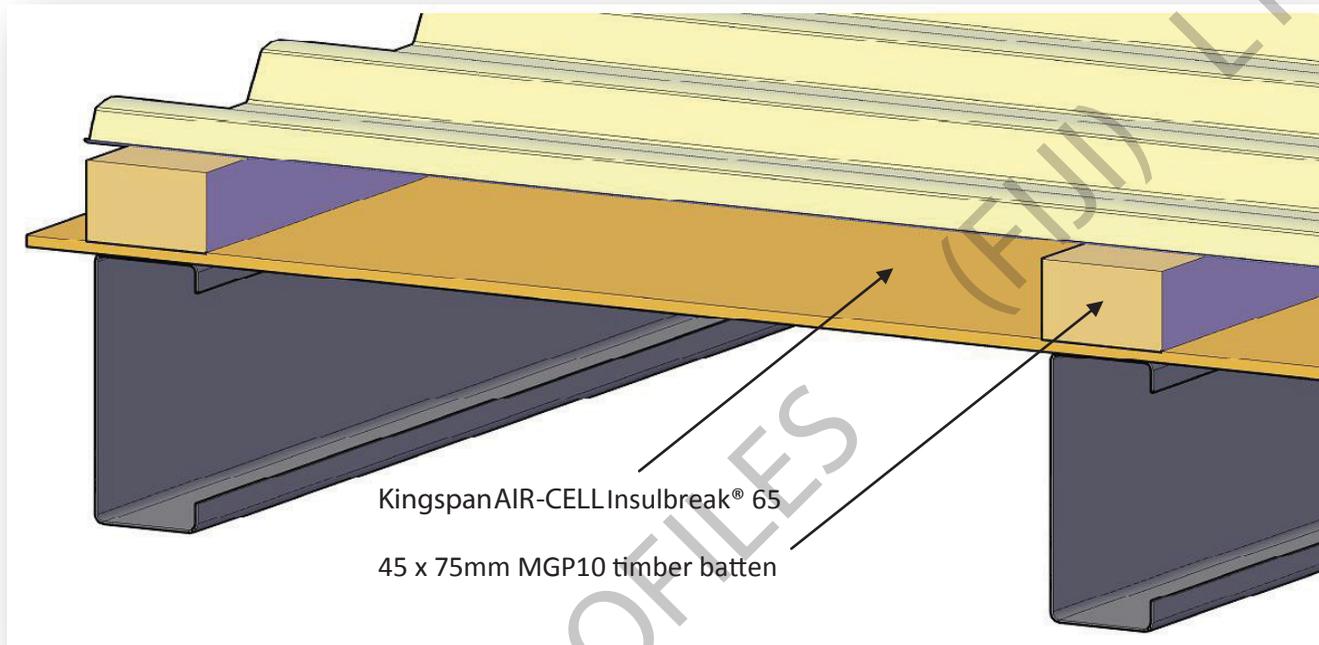


An internal technical bulletin for Kingspan staff and distributors



Purpose

Where a 45mm continuous airspace is required above the KingspanAIR-CELL Insulbreak® 65 foil insulation the following system can be used. This system can be used throughout Australia, including cyclonic regions.

Testing

Simulated cyclic strength wind load testing was conducted on a roof system comprising of 0.42mm Base Metal Thickness (BMT) roof cladding, timber battens and KingspanAIR-CELL Insulbreak® 65 insulation. The wind load testing was conducted by the Cyclone Testing Station at James Cook University, Townsville (NATA accredited testing laboratory) in accordance with NCC 2011 (Low-High-Low) regime.



Roof system

Cladding Material:	G550 steel and 0.42mm BMT
Cladding Profile:	Trapezoidal rib/pan cladding with 5 ribs per sheet, 762mm cover width and 190mm rib pitch.
Cladding Fasteners:	14-10 x 65mm Type 17 screws fitted with steel <i>Squarelok</i> washers
Cladding Fixing Detail:	Cladding fixed at every rib with one cladding fastener.
Support Detail:	45 x 75mm MGP10 timber battens fixed along top flanges of 1.5mm BMT purlin.
Batten Fasteners:	14-10 x 65mm self drilling metal screws spaced at 190mm.
Batten Fixing Detail:	Battens to be pre-drilled to countersink batten fasteners.
Safety Mesh:	2mm galvanised wire mesh 1800mm wide with aperture size of 300 x 150mm.

Ultimate Limit State wind pressure (kPa)

Insulation Details	Batten Fastener Spacing (mm)	Internal Span Length (mm)	End Span Length (mm)	Design Pressure (kPa)
6.5mm thick <i>Kingspan AIR-CELL</i> Insulbreak® 65 foil faced insulation	190	600	600	9.59
	190	1200	1065	5.70
	190	1500	1290	3.83

Key Benefits

- Passed LHL testing at James Cook University's test facility.
- Economical solution to create a 45mm airspace above the *Kingspan AIR-CELL* Insulbreak® 65 to meet section J requirements.
- Timber batten will suit all purlin widths.
- Easy to install.
- Timber ready available.

For details on fixings refer to:-

ITW Buildex 1300 137 273

<http://www.buildex.com.au/>

For details on roof cladding refer to:-

Bluescope Lysaght (07) 3365 7622

<http://www.lysaght.com/>

For more information please contact Kingspan Insulation Technical Department technical.au@insulation.kingspan.com