TECHNICAL MANUAL
INSULBLUE Reflective Foam Insulation

1. **Introduction**
2. **Physical Properties**
3. **Fire Performance**
4. **Installation**

1.1 About This Manual:

This manual has been developed to effectively assist fabricators and contractors to work with INSULBLUE. Due to the uncontrollable conditions onsite and different methods of job scope, as well as the variable skills and judgment of installers and the quality of equipment, tools, etc, the suggestions and recommendations contained in this manual are provided without warranty. The information and recommendations herein are believed to be correct at time of publishing.

BLUECHIP reserves the right to revise the contents of this manual without prior notice. Any construction or use of the product must be in accordance with all local zoning and/or building codes and in accordance with the current NCC at the time of use. Except as contained in a written warranty certificate, the supplier does not provide any other warranty, either express or implied, and shall not be liable for any damages, including consequential damages.

1.2 Company Background:

Founded in 2003 by five brothers, BLUECHIP has grown every year since to become one of Australia's leading suppliers of architectural building envelopes. BLUECHIP's product range covers the complete system from the structure out including all types of cladding materials, composite decking, sub-framing, insulation, waterproofing and fixings.

With offices in Sydney, Melbourne and Perth, BLUECHIP has supplied more than 3,000,000m2 of materials to Australian projects since 2003. Our commitment to innovation and ongoing investment in R&D ensures BLUECHIP will continue to lead the market with BCA/NCC compliant facade solutions in the years ahead.

For architects and consultants, BLUECHIP's wide range of different materials and 'complete-system' approach enables the creation of inspiring high-performance facades. For builders and contractors, BLUECHIP's large local stock, well established supply chains and genuine appreciation for our clients means you can trust us to deliver as promised every time.

1.3 Company Details:

Company:	Blue Chip Group Pty Ltd
ABN:	98 162 282 064
Head Office:	16 Ashby Close, Forrestfield WA 6058
Phone:	1300 945 123
Email:	sales@bluechipgroup.net.au

Important Note:
If non-combustible insulation is required, such as in the external walls of a type A or B construction building, use IROCK non-combustible mineral wool insulation board instead; https://www.bluechipgroup.net.au/insulation-perth/non-combustible-rockwool-insulation.html

1.4 Product Description:

Reflective Foam Insulation
INSULBLUE foam insulation products are a heavy duty 3-in-1 insulation, thermal and radiant barrier comprising of an advanced high density closed cell XPE foam material sandwiched between two layers of poly woven foil. INSULBLUE foam insulation provides excellent thermal properties and reflectivity and is suitable for use in roof, cavity, wall wrap and floor systems for all construction types. It provides superior thermal ratings to standard sarking and helps to reduce thermal bridging between building elements such as exterior cladding and structure.

Easy To Use
INSULBLUE foam insulation is a ultra-flexible product which is easily adaptable for wrap-around areas and varied surface types making it quick and easy to install.

Tear Resistance
With heavy duty foil and high density XPE foam core, INSULBLUE foam insulation is able to withstand high wind and has high tear resistance in extreme conditions.

Resistant To Delamination
The poly woven reflective foils used in the manufacture of INSULBLUE foam insulation offer outstanding resistance to delamination over time ensuring excellent long-term performance.

Proven To Perform
Used widely in roofing, wall wrap and cavity applications across Australia for many years, INSULBLUE foam insulation has been proven to withstand the harsh climate nationally.

BCA Compliant
INSULBLUE foam insulation has been tested in accordance with relevant Australian standards giving confidence to builders and contractors for suitability in all applications.

Fibre-Free Material
Made from cross-linked closed cell XPE foam, INSULBLUE foam insulation is non-irritant to skin and non-allergenic making it easy for contractors to work with.

Clear Cavity Maintained
When INSULBLUE foam insulation is used in wall cavity applications such as double brick construction a clear cavity is still maintained making it easily accessible for services.

Water Resistant
The heavy-duty facings and closed-cell material structure of INSULBLUE foam insulation means there is no product degradation over time caused by any event of moisture ingress.

1.5 More Information on INSULBLUE:
https://www.bluechipgroup.net.au/insulation-perth/foam-insulation-perth.html

Important Note:
If non-combustible insulation is required, such as in the external walls of a type A or B construction building, use IROCK non-combustible mineral wool insulation board instead;
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BLUECHIP
Insulation Products

2.1 Physical Properties – Technical Data

ITEM	TEST STANDARD	UNIT	RESULT
Roll Width	Actual	mm	1350
Roll Length	Actual	m	22.25
Roll Quantity	Actual	m2	30
Thickness & Weight per Roll ▪ 4.0mm Thickness ▪ 6.5mm Thickness ▪ 8.0mm Thickness	 Actual Actual Actual	 Kg Kg Kg	 ≈13 ≈16 ≈19
Thermal Conductivity	ASTM C518	W/mK	0.04
Material R-value at 0.04W/mK ▪ 4.0mm Thickness ▪ 6.5mm Thickness ▪ 8.0mm Thickness	 ASTM C518 ASTM C518 ASTM C518	 R-value R-value R-value	 0.10 0.17 0.20
Duty / Tensile Strength	AS 4200.1	Classification	Heavy Duty
Dry Delamination	AS 4201.1	-	Pass
Wet Delamination	AS 4201.2	-	Pass
Shrinkage	AS 4201.3	%	0.1
Water Barrier	AS 4201.4	Classification	Unclassified*
Emittance (Silver Side)	ASTM E408	Value	0.03
Reflectivity (Silver Side)	AS 4201.5	Actual	97%
Emittance (Blue Anti-glare Side)	ASTM E408	Value	0.11
Reflectivity (Blue Anti-glare Side)	AS 4201.5	Actual	89%
Water Absorbency	AS 4201.6	g/m2	63.1
Water Absorbency Classification	AS 4201.6	-	Low
Formaldehyde Content	Actual	%	0
CFC/HCFC Content	Actual	%	0
Ozone Depletion Potential (ODP)	Actual	%	0
Corrosive Content	Actual	%	0

*INSULBLUE Reflective Foam Insulation is a perforated membrane primarily used in applications where vapour permeability and a reflective airgap are required and accordingly it is Unclassified as a Water Barrier. For a Water Barrier option, the product code is **IFS813522**.

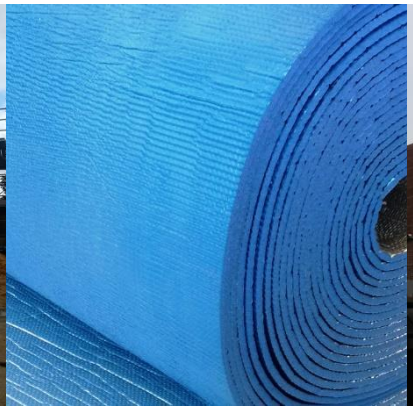
3.1 Fire Performance – As per NCC 2019 Spec. C1.10 & NCC 2022 Spec. S7C7

ITEM	TEST STANDARD	UNIT	RESULT
Flammability Index	AS 1530.2	-	1
Ignitability Index	AS 1530.3	-	0
Spread of Flame Index	AS 1530.3	-	0
Heat Evolved Index	AS 1530.3	-	0
Smoke Developed Index	AS 1530.3	-	1

Important Note:
If non-combustible insulation is required, such as in the external walls of a type A or B construction building, use IROCK non-combustible mineral wool insulation board instead;
https://www.bluechipgroup.net.au/insulation-perth/non-combustible-rockwool-insulation.html

4.1 INSULBLUE Installation in Double Brick Cavity Application:

- Construct the outer leaf with wall ties in place to an appropriate level to allow installation of INSULBLUE insulation to proceed.
- Remove excess mortar and mortar droppings from exposed edges of any installed brickwork and wall ties.
- Fit an INSULBLUE Cavity Spacer to the wall ties and push against the outer leaf brickwork. Install to minimum every second wall tie or as required to ensure a nominal 20mm air space between the brick face and INSULBLUE is maintained.
- Roll out the roll of INSULBLUE insulation along the wall with the blue anti-glare side facing towards the inside of the building and lean up to the wall.
- Create slits in the INSULBLUE as required to allow for wall ties to protrude through.
- Apply the INSULBLUE insulation over the wall ties until it up against the cavity spacers and secure in place using universal retaining clips if necessary.
- Allow a minimum 50mm overlap at horizontal joints with the upper layer overlapping on the outside of the lower layer. Tape around the wall ties and along all the INSULBLUE insulation joints with INSULTAPE Reinforced Foil Tape.
- When taping a stiff plastic scraper or blade must be used to apply appropriate pressure to the tape. Surfaces must be sufficiently cleaned to ensure they are dry and free from dust, oil or grease to ensure long-term tape adhesion.
- The inner leaf is then built up to the level of the top of the first row of INSULBLUE and the above process is repeated until the full height of the wall is reached.
- Fit the INSULBLUE neatly around windows, doors and any other penetrations, taping as necessary to achieve the required airtightness and weatherproofing.
- The insulation boards shall be installed in accordance with the latest version of the Australian NCC/BCA as well as any other government regulations or requirements at any given time and for any project.


4.2 INSULBLUE Installation in Steel-frame Wall Application:

- Construct the steel-frame wall or building sufficiently to allow installation of INSULBLUE insulation to proceed on the outer side.
- Roll out the roll of INSULBLUE insulation along the outside of the wall with the blue anti-glare side facing towards the outside of the building and lean up to the wall.
- With the blue anti-glare towards the outside of the building, install the INSULBLUE to the frame loosely to allow the insulation to be dished into the wall cavity between the framing members.
- Cut the INSULBLUE neatly around all doors, windows, and other penetrations so that it fits closely against the frames and tape as necessary to achieve the required airtightness and weatherproofing.
- Leave a minimum 100mm clearance between the INSULBLUE and any heat producing flues or light fittings in accordance with any relevant standards and the light fitting manufacturer's instructions.
- Butt together all joints both vertically and horizontally and tape with minimum 72 or 96mm INSULTAPE Reinforced Foil Tape.
- When taping a stiff plastic scraper or blade must be used to apply appropriate pressure to the tape. Surfaces must be sufficiently cleaned to ensure they are dry and free from dust, oil, or grease to ensure long-term tape adhesion.
- Adhere INSULBLUE Cavity Spacer's to the outer side (blue anti-glare side) of the INSULBLUE using the pre-applied self-adhesive with a minimum 3 spacers per square metre or as required to ensure an outer airspace is maintained.
- Once INSULBLUE insulation is installed then installation of the selected cladding can commence fixing to the steel frame through the INSULBLUE.
- The insulation boards shall be installed in accordance with the latest version of the Australian NCC/BCA as well as any other government regulations or requirements at any given time and for any project.