

# High performance PIR insulation

**PRODUCT GUIDE** 

High thermal performance from slimline rigid boards



## High performance PIR insulation

CSR Bradford has collaborated with a renowned European manufacturer to bring the Xtratherm range of PIR insulation products to the Australian and New Zealand markets.

The advanced PIR formula of Xtratherm achieves high R-Values performance in a thin, slimline, rigid board profile that can significantly reduce the bulk of construction and optimise internal building space. Xtratherm provides a continuous thermal barrier across various wall and soffit elements which improves the overall thermal performance and reduces thermal bridging. Xtratherm is fully compliant to the Australian National Construction Code.

### Xtratherm PIR technology

Xtratherm's special inner core is an advanced thermoset polyisocyanurate (PIR) foam which is sandwiched between two layers of embossed aluminium foil facings.

The Xtratherm PIR products provide a modern thermal insulation solution for commercial and residential building envelopes. Xtratherm's high thermal performance, slimline profile combined with compressive strength, allows it to be efficiently designed into a building as a continuous thermal barrier across various wall and soffit elements.

## General installation and handling

**Cutting** – Xtratherm boards can be readily cut using a sharp knife or a fine toothed saw. Ensure tight fitting of the insulation boards to achieve continuity of insulation.

Joints – It's good practice to seal Xtratherm board joints with an approved aluminium foil tape. Sealing joints controls moisture and smoke penetration, improves the airtightness of the building envelope and assists in providing a consistent finish in exposed applications. When the boards abut with other construction elements it is good practice to seal these joints with a low modulus silicon sealant.

**Taping Joints** – Surface preparation is always required when taping. All surfaces must be clean, sound and free of dust and contaminates. If taping surface needs to be cleaned we recommend cleaning the surface with a white spirit.

**Durability** – Xtratherm products are dimensionally stable, rot proof and will remain effective for the life span of the building, dependent on specification and installation. Care should be taken to avoid contact with acids, petrol, alkalis and mineral oil, when contact is made, clean materials in a safe manner before installation. Solvent based adhesives containing methyl ethyl keytone, should not be used.

#### **TYPICAL APPLICATIONS**

Concrete soffit	Concrete wall	Double brick cavity wall	Cladded wall

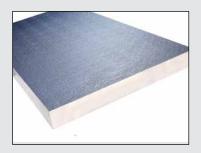
## Xtratherm product range



#### **THIN-R** – High performance PIR

Thin-R is a range of high performance foil faced Polyisocyanurate (PIR) insulation with a certified thermal conductivity as low as 0.022W/mK. Thin-R can be deployed across the widest range of applications, and is ideal for applications where space may be limited.

- o Thinnest solution where space may be limited
- o Non-aesthetic finish for enclosed area
- Ideal for wall applications



#### XTROLINER DUO (WHITE/SILVER) - Enhanced PIR insulation board

XtroLiner Duo is a range of enhanced PIR rigid insulation boards bonded to low emissivity textured aluminium foil facings, with standard embossed aluminium on one side and an embossed aluminium with pre-finish white paint coating on the other. XtroLiner Duo not only provides superior thermal conductivity, as low as 0.021W/mK, but also improved fire performance for more demanding applications in both commercial and residential buildings.

- Flat finish, no pillowing solution for soffit applications
- Limited-aesthetic finish ideal for carparks
- o White or Silver finish options within the one product

#### **PRODUCT TESTING - THIN-R**

CHARACTERISTIC	RESULT	TEST METHOD	
Compressive strength	140 kPa	EN826	
Water vapour resistivity	>100 (MNs/gm)	ASTM E96	
Thermal conductivity	0.022 (W/mK)	ASTM C518-10	
Service temperature	- 20° C to + 100° C	EN 14706	
Emissivity	E0.05 (foil face)	ASTM E1933-14	

#### **PRODUCT TESTING - XTROLINER DUO**

CHARACTERISTIC	RESULT	TEST METHOD	
Compressive strength	125 kPa	EN826	
Water vapour resistivity	>100 (MNs/gm)	ASTM E96	
Thermal conductivity	0.021 (W/mK)	ASTM C518-10	
Service temperature	- 20° C to + 100° C	EN 14706	
Emissivity	E0.03 (foil face- silver)	ASTM E1933-14	

#### FIRE PERFORMANCE - XTROLINER DUO & THIN-R

FIRE PERFORMANCE TEST	STANDARD	RESULT	PRODUCT	
Ignitability	AS/NZS 1530.3	0	Xtroliner Duo & Thin-R	
Spread of flame	AS/NZS 1530.3	0	Xtroliner Duo & Thin-R	
Heat evolved	AS/NZS 1530.3	0	Xtroliner Duo & Thin-R	
Smoke developed	AS/NZS 1530.3	1	Xtroliner Duo & Thin-R	

#### **ENVIRONMENTAL INFORMATION**

The Xtratherm range is HCHC free, CFC free and has zero ozone depletion potential (ODP). The Xtratherm range of products have been assessed under the BRE Environmental Profiles Methodology to achieve Green Guide rating of A+ or A giving independent certification of the products low environmental impact, and achieving the highest score available under Credit 1 of BREEAM. BREEAM also awards credits for the responsible sourcing of materials under ISO 14001 from the insulation manufacturer and their immediate suppliers.

## Xtratherm product details

MATERIAL DESCRIPTION	THICKNESS (mm)	MATERIAL R-VALUE	STANDARD SIZE (mm)	SHEET SIZE (m <sup>2</sup> )	Kg PER m²	SHEETS PER PACK	PACK SIZE (m²)	PRODUCT CODE
Thin-R								
Thin-R	15	0.68	2270 x 1200	2.72	0.62	20	54.48	130305
Thin-R	20	0.90	2270 x 1200	2.72	0.87	15	40.86	114654*
Thin-R	30	1.36	2270 x 1200	2.72	1.20	10	27.24	114655
Thin-R	40	1.82	2270 x 1200	2.72	1.52	7	19.07	130306*
Thin-R	50	2.27	2270 x 1200	2.72	1.85	6	16.34	127317*
Thin-R	60	2.73	2270 x 1200	2.72	2.17	5	13.62	130307*
Thin-R	70	3.18	2270 x 1200	2.72	2.50	4	10.90	130308*

Xtroliner Duo								
Xtroliner Duo	25	1.19	2270 x 1200	2.72	1.22	12	32.69	131886
Xtroliner Duo	30	1.43	2270 x 1200	2.72	1.39	10	27.24	131887*
Xtroliner Duo	40	1.90	2270 x 1200	2.72	1.71	7	19.07	131888
Xtroliner Duo	50	2.38	2270 x 1200	2.72	2.04	6	16.34	131889
Xtroliner Duo	60	2.86	2270 x 1200	2.72	2.36	5	13.62	131890*
Xtroliner Duo	70	3.33	2270 x 1200	2.72	2.69	4	10.90	131901
Xtroliner Duo	75	3.57	2270 x 1200	2.72	2.85	4	10.90	131902

<sup>\*</sup>Non-stock item. Minimum order quantities and extended lead times may apply - please contact your local Bradford representative for further details.

For more information call 1300 850 305 or visit bradfordxtratherm.com.au



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