



Te Kāhui
Whaihanga
NZIA Approved
CPD Provider

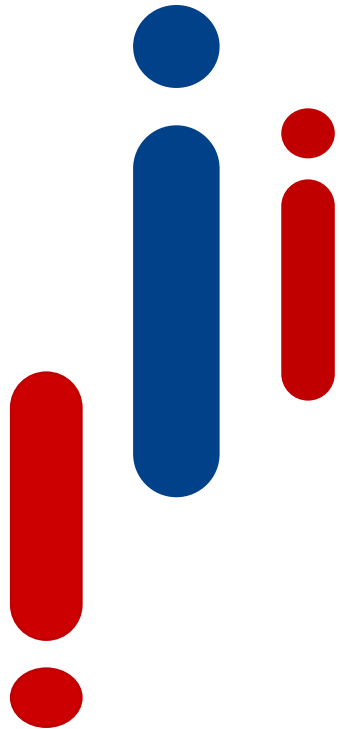
 Kingspan. Thermakraft™

Kingspan Thermakraft NZWIR Presentation

Warmer in winter,
cooler in summer,
dry all year



Agenda



- Kingspan Thermakraft
- Kooltherm
- Benefits of Continuous Insulation
- Construction using Kooltherm

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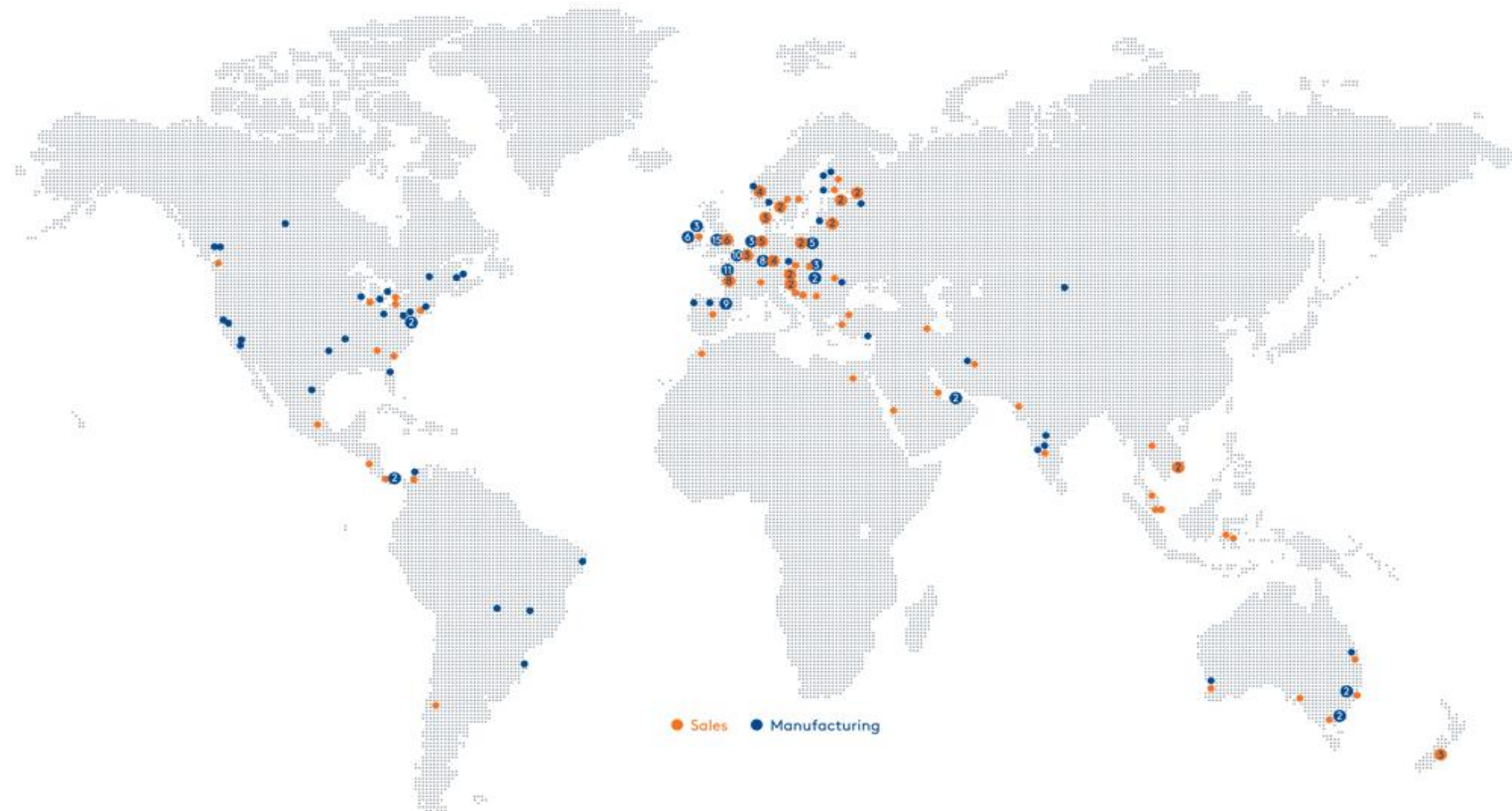
Kingspan
Thermakraft –
Who are we?



Kingspan – Who are we?

OUR GLOBAL PRESENCE

- **80+**
Countries
- **212**
Manufacturing Facilities
- **6**
Business Stems
- **22,000+**
Employees Worldwide



Australasia Factories

Somerton Plant - Melbourne



Otara Plant - Auckland



Kooltherm –
what is it?



Kingspan Kooltherm

Fibre-free

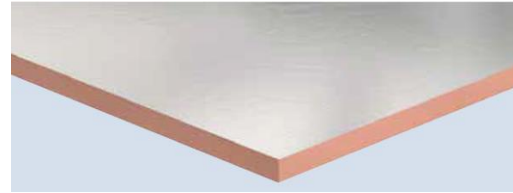
CFC/HCFC- Free

High R-Value per thickness

Low flame and smoke emission

Continuous insulation

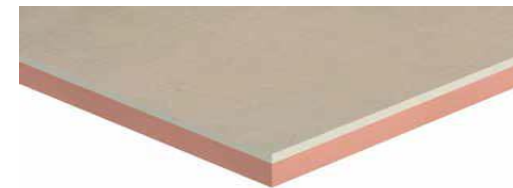
AS/NZS 4859.1:2018 Compliant



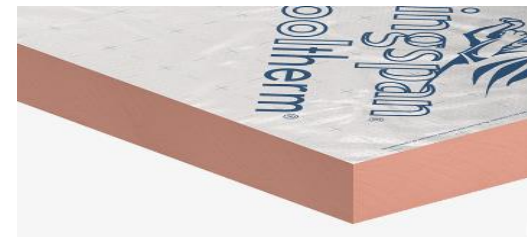
K10 Soffit Board



K12 Framing Board



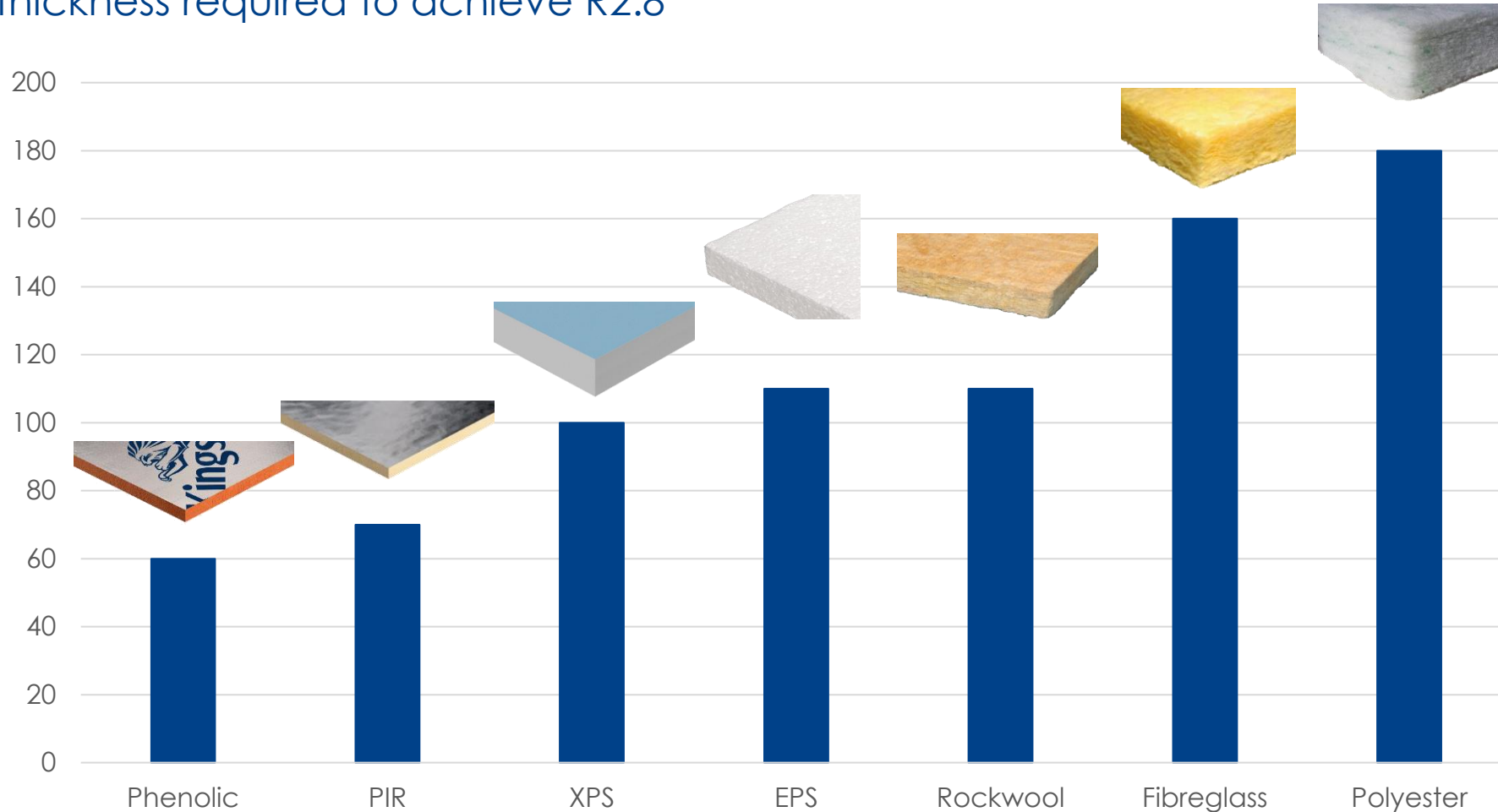
K17 Insulated Plasterboard



K7 Pitched Roof Board

How Kooltherm compares

Material thickness required to achieve R2.8



8



Thermakraft™

Continuous
insulation



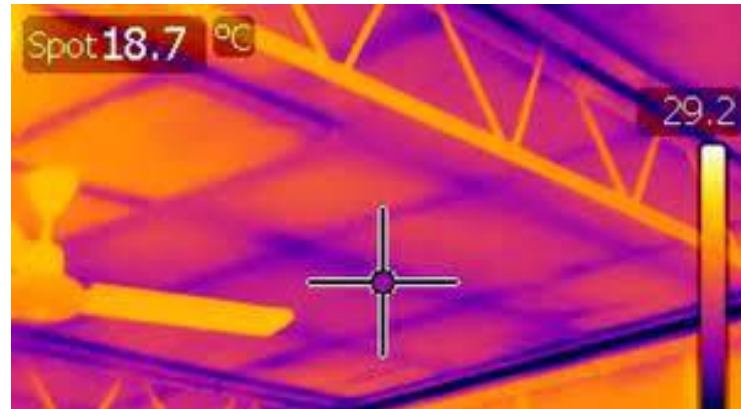
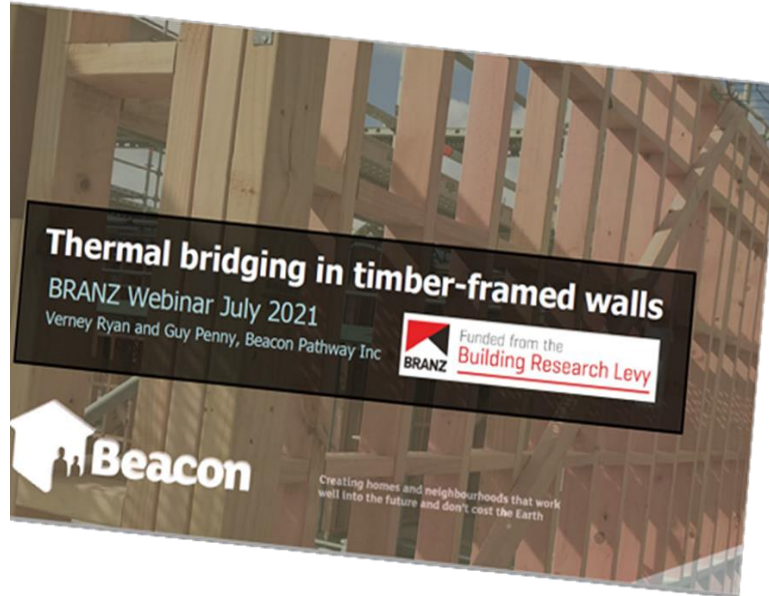
Continuous Insulation



Thermal bridging issues

BRANZ & Beacon Pathway study

Thermal Bridging



Thermal bridging

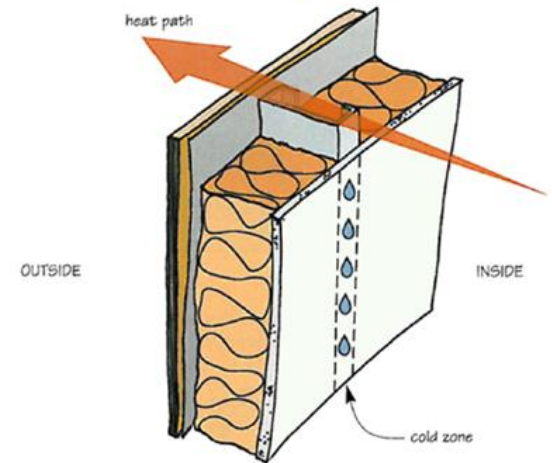


Image source: Build magazine *Condensation and thermal bridges*
Malcolm Cunningham, 1 April 2005, Build 87

Thermal bridging issues





Thermakraft™

Construction using Kooltherm



Solutions to meeting new NZBC Insulation Requirements

Skillion Roof Retrofit



Solutions to meeting new NZBC Insulation Requirements

Skillion Roof Retrofit



Construction Using Kooltherm

Skillion Roof – New builds/Retro – Kooltherm K7



Kooltherm K7 between and over rafters at maximum 600mm centres

Construction R-Value for Various Thicknesses of Kingspan Kooltherm K7 and Different Timber Rafter Depth

Thickness of Kooltherm K7	Timber Rafter Depth				
	90mm	140mm	190mm	240mm	290mm
40+40	3.55	3.60	3.60	3.65	3.65
50+50	4.40	4.45	4.50	4.50	4.50
60+60	5.10	5.20	5.25	5.25	5.25
70+70	5.80	5.90	5.95	5.95	6.00
80+80	6.35	6.70	6.70	6.75	6.75
90+90	6.90	7.50	7.45	7.50	7.50
100+100	NA	8.15	8.20	8.20	8.20

Construction Using Kooltherm

Skillion Roof – New builds – K7



Construction R-Value for Various Thicknesses of Kingspan Kooltherm K7 and Different Timber Rafter Depth					
Thickness of Kooltherm K7	Timber Rafter Depth				
	90mm	140mm	190mm	240mm	290mm
	R2.1 Bulk	R3.6 Bulk	R5.0 Bulk	R6.0 Bulk	R7.4 Bulk
40mm (R1.75)	3.60	4.75	5.85	6.70	7.80
50mm (R2.35)	4.10	5.25	6.35	7.20	8.10
60mm (R2.80)	4.55	5.75	6.80	7.65	8.50
70mm (R3.30)	5.00	6.15	7.25	8.10	8.95
80mm (R3.75)	5.45	6.60	7.70	8.55	9.40
90mm (R4.20)	5.85	7.05	8.15	8.95	9.85
100mm (R4.70)	NA	7.50	8.60	9.45	10.25

Kooltherm K7 under rafters and bulk insulation at maximum 600mm centres



Questions

Comments

Thoughts

STAY IN TOUCH



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Candice Smith –
SI Specification Manager

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