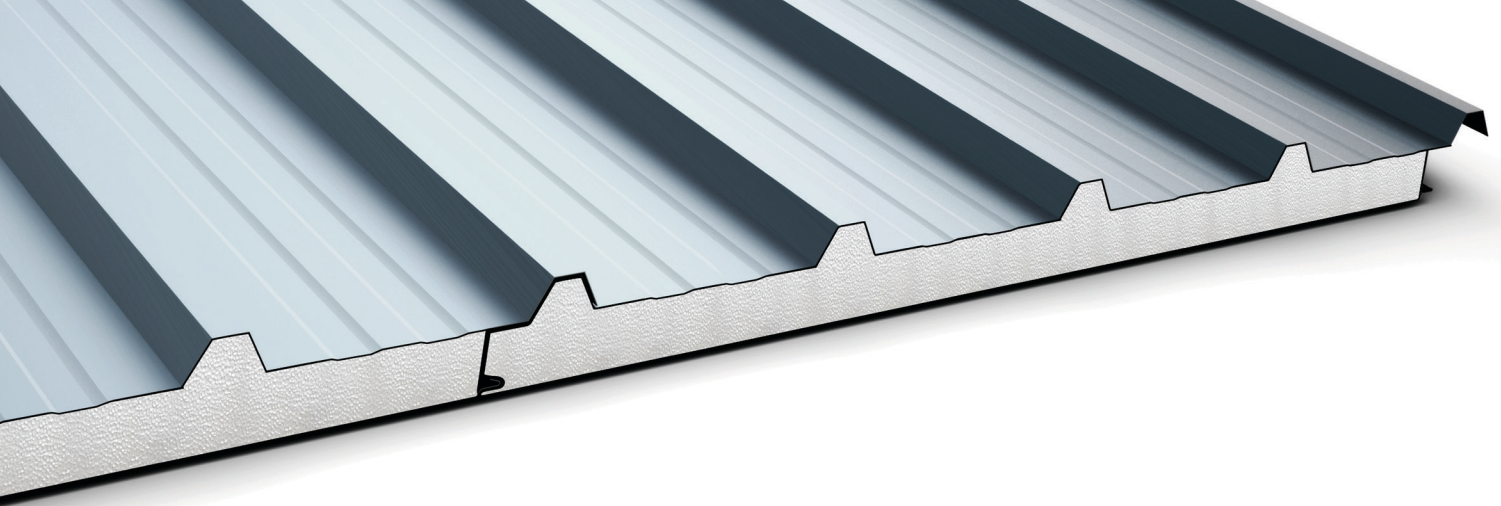




THERMOSPAN





## THERMOSPAN IS LOCALLY MADE IN NEW ZEALAND FOR LONGER LENGTHS AND QUICKER SUPPLY

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THERMOSPAN IS MANUFACTURED IN NEW ZEALAND. THIS IS A GREAT ADVANTAGE AS SHEET LENGTHS CAN BE LONGER THAN LENGTHS TYPICALLY ASSOCIATED WITH IMPORTED PANEL REDUCING THE NEED OF END LAPS.

LENGTHS ARE RESTRICTED BY TRANSPORTATION TO SITE. IF SHEET LENGTHS LONGER THAN 15M ARE REQUIRED, PLEASE CHECK WITH METALCRAFT INSULATED PANELS.

## WHO WE ARE

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Metalcraft Insulated Panels specialises in the manufacture and supply of insulated panels. All our products are backed by solid warranties and the range of insulated panels, supplied by us can be used in a variety of applications from industrial and commercial coolstore to agricultural and architectural buildings.

## FEATURE AND BENEFITS:

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ThermoSpan can be used in a variety of residential and commercial, roof and wall cladding applications and is backed by a solid warranty.

ThermoSpan provides for greater strength and longer spans. It offers a clean, smooth aesthetic look to the underside. ThermoSpan is also available in a limited colour range from the COLORSTEEL® range of roof colours.

ThermoSpan consists of a 0.59mm profiled roofing sheet bonded to an EPS core with a ceiling panel sheet bonded to the underside. The EPS core is treated with a flame retardant additive.

- NZ Made for longer sheet lengths and shorter lead times.
- EPS core treated with a flame retardant additive
- Thermally efficient
- A reduction of wet trades
- Ease of cutting and trimming on site
- Minimal mess on site
- Compatibility with openings and design elements of the building
- NZ Steel - COLORSTEEL® colours for perfect colour match with flashings

## CODEMARK®

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ThermoSpan has been Codemark certified. Please refer to Metalcraft for specific Codemark installation requirements.

## COMPLIANCE WITH THE NEW ZEALAND BUILDING CODE

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Where Metalcraft Insulated Panels are designed, installed and maintained in accordance with the conditions of CodeMark Certificate (No. GM-CM30078) the panel system will comply or contribute to compliance with the NZ Building Code.

## METALCRAFT CODEMARK EXPLAINED

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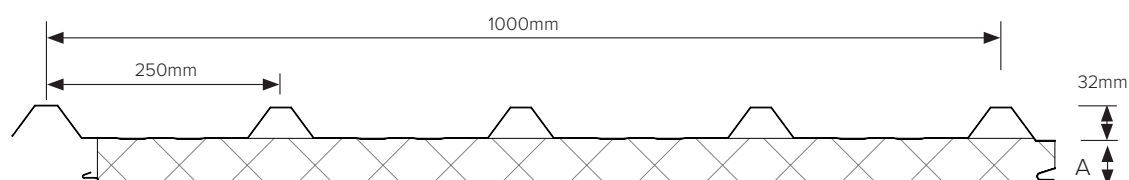
Metalcraft Insulated Panels is the certificate holder of CodeMark (GM-CM30078) for ThermoSpan and ThermoPanel Insulated EPS Panels. CodeMark is a third party certification, allowed for under the Building Act 2004. This means that under law, a Building Consent Authority must accept the specification of ThermoSpan and ThermoPanel EPS Insulated Panels (the panel and the installation details) as complying with the NZ Building Code, providing that all conditions of the certificate have been met.

Achieving CodeMark also focuses on the quality of ThermoSpan and ThermoPanel Insulated EPS Panels, and the quality and competence of the support provided by Metalcraft Insulated Panels.

This means that designers and installers can use ThermoSpan and ThermoPanel Insulated EPS Panels with confidence, providing all instructions are followed, ThermoSpan and ThermoPanel Insulated EPS Panels will result in building work complying with the NZ Building Code. CodeMark Certificate-GM-CM30078 issued by Global-Mark Pty.

# STYLE & PERFORMANCE

## PANEL DIMENSIONS



Dimensions, cover and sheet widths are all nominal and may vary with manufacturing and installation tolerances. Line drawings are indicative only and should not be scaled, if other dimensions are required please ask for them from Metalcraft Insulated Panels.

Panel Thickness = A  
50, 75, 100, 125, 150, 175, 200 & 250mm

## INNER PROFILE OPTIONS

ThermoSpan consists of 0.59mm profiled roofing sheet bonded to an EPS core with a ceiling panel sheet bonded to the underside. ThermoSpan has a flame retardant additive to the EPS core and is available in a range of colour and ceiling

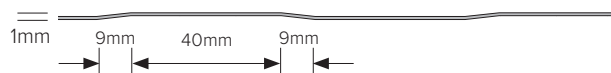
### FLAT FINISH - AVAILABLE INNER SKIN SIDE ONLY



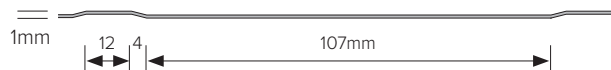
### SILKLINE FINISH - AVAILABLE INNER SKIN SIDE ONLY



### MESA FINISH - AVAILABLE INNER SKIN SIDE ONLY



### RIBBED FINISH - AVAILABLE INNER SKIN SIDE ONLY



## PRODUCT PROPERTIES

<b>Core</b>	EPS with flame retardant additive Class "S" Standard
<b>External facing</b>	0.59mm COLORSTEEL® MAXAM® G300 AM150 consistent with AS 1397:2021.  The correct steel is dependent on the environmental category and corrosion zone, please consult Metalcraft Insulated Panels.
<b>Internal Facing</b>	0.59mm COLORSTEEL® MAXAM® G300 AM150 consistent with AS 1397:2021. or 0.59mm CP Grade Prepainted Galvanised Steel G300 Z275 consistent with AS 1397:2021.  Please consult Metalcraft Insulated Panels for correct selection for application.
<b>Width</b>	1000mm
<b>Length</b>	Manufactured in Auckland - Max length 24m Lengths are restricted by transportation to site.
<b>Thickness</b>	50mm, 75mm, 100mm, 125mm 150mm, 175mm, 200mm, 250mm
<b>Flame retardant additive</b>	Yes - ThermoSpan's EPS core has been treated with a flame retardant additive

# THERMOSPAN

## THERMAL

The below total R-values are for insulation at an average temperature of 15°C. Contact us for other temperatures.

Panel Thickness (mm)	50	75	100	125	150	175	200	250
Mass Kg/m <sup>2</sup>	11.30	11.60	12.00	12.30	12.70	13.0	13.30	14.00
U Value W/m <sup>2</sup> K	0.76	0.51	0.38	0.30	0.25	0.22	0.19	0.15
R Value m <sup>2</sup> K/W	1.32	1.97	2.63	3.29	3.95	4.60	5.26	6.58

## MINIMUM PITCH

Roof pitches will vary depending on the site conditions, loads, purpose, configuration, snow loading and span requirements.

Buildings designed with widely spaced purlins and portal frames may require a frame pitch increase of 1 or 2 degrees.

- Min. roof slope of 3 degree applies

## ROOF NOISE

Metalcraft Insulated Panels advise the use of light colours and expansion detailing for long panels to mitigate potential noise issues that might arise within a ThermoSpan roof.

The homeowner, architect and designer should be aware that temperatures of dark colours are higher than those of lighter colours. Darker colours will thermally expand more.

Thermal expansion of metal roofs is covered in the NZMRM Code of Practice. The MBIE document on roof cladding advises that noise from thermal expansion is normal and should be expected. Refer to MBIE -Guide to tolerances, materials and workmanship in new residential construction 2015.

## ISO 9705

ThermoSpan conforms to the requirements of the NZBC and has achieved a group 1S. Please note specific installation requirements are needed and available if required.

## AS 2122.1-1993

Compliant to AS1366.3 Part 3  
AWTA Test Report: 7- 561976-CO

# LOADSPAN TABLE

## THERMOSPAN LOADSPAN TABLE

FOR PERMISSABLE VALUE WIND PRESSURES (kPa)

Thickness (mm)	Span (mm)															
	1500	1800	2100	2400	2700	3000	3300	3600	3900	4100	4500	4800	5100	5400	5700	6000
50	2.88	2.40	2.06	1.80	1.60	1.50	1.20	1.00	0.90	0.80	0.65	0.57	0.51	0.45		
75	3.00	2.50	2.14	1.87	1.67	1.61	1.36	1.25	1.15	1.10	0.93	0.82	0.72	0.64	0.58	0.52
100	3.75	3.20	2.78	2.45	2.20	2.00	1.84	1.70	1.59	1.52	1.33	1.22	1.02	0.94	0.90	0.63
125	3.83	3.54	2.99	2.68	2.32	2.10	2.18	2.00	1.93	1.88	1.56	1.37	1.21	1.08	0.97	0.87
150					4.30	3.95	3.61	3.00	2.58	2.25	1.87	1.64	1.45	1.30	1.16	1.05
175						4.29	3.85	3.55	3.00	2.60	2.20	1.85	1.62	1.42	1.28	1.20
200								4.00	3.55	3.00	2.35	2.00	1.70	1.51	1.37	1.25
250									4.10	3.85	3.61	3.00	2.55	2.23	2.10	1.98

- 1 Pressures are maximum permissible values with a safety factor of 1.8 on the ultimate mean failure load.
- 2 Where required, Ultimate Limit State Pressure values are obtained by multiplying table values by 1.8 (Safety factor) and 0.9 (Material factor). ie, Ultimate Limit State value (kPa) = Table value x 1.8 x 0.9 (kPa).
- 4 The spans are for single spans, i.e. panel supported at the ends. The spans in multi-span cases are no greater than for the single span case.
- 5 Deflection limit of Span / 150 for SLS has been applied.
- 6 Non-trafficable maintenance access (concentrated load) of 110kg has been allowed for.

## THERMOSPAN FIXINGS

Fixing with 14g tek screws (or equivalent) at each rib are required. Wall cladding is typically pan fixed.

## NOTES:

1. The maximum permissible pull-out load on a rib fixing is 1.8 kN. Always check that adequate fixing capacity is provided.
2. The spans are for single spans, i.e. panel supported at the ends. The spans in multi-span cases are no greater than for the single span case.
3. The maximum overhang without a thermal break is 0.25 times the maximum span for the given conditions, provided this value does not exceed:
  - 600 mm for 50mm ThermoSpan
  - 1000 mm for 75mm ThermoSpan
  - 1200 mm for 100mm or thicker.

Longer cantilevers can be expected on thicker panels and require specific engineer design. Please consult Metalcraft Insulated Panels.

For cantilevers with a thermal break, consult Metalcraft Insulated Panels for maximum cantilever.

# BRANCH

AUCKLAND  
139 Roscommon Road, Wiri,  
Auckland  
T: 09 277 8844  
[sales@metpanels.co.nz](mailto:sales@metpanels.co.nz)

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Metalcraft Insulated Panels are members of the Roofing Association, New Zealand and the New Zealand Metal Roofing Manufacturers Incorporated.



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