

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

THERMOPANEL IS MANUFACTURED IN NEW ZEALAND. THIS IS A GREAT ADVANTAGE AS SHEET LENGTHS CAN BE LONGER THAN LENGTHS TYPICALLY ASSOCIATED WITH IMPORTED PANEL.

WHO WE ARE

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:

Thermopanel is a stressed skin sandwich panel, comprised of pre-painted steel skins continuously laminated over a polystyrene, EPS core treated with a flame retardant additive.

Thermopanel is available in a range of colours with a variety of profile finishes.

Thermopanel provides for greater strength in walls and a clean, smooth aesthetic look.

- 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
- Efficient concealed fixing system
- 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®

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

COMPLIANCE WITH NZBC

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

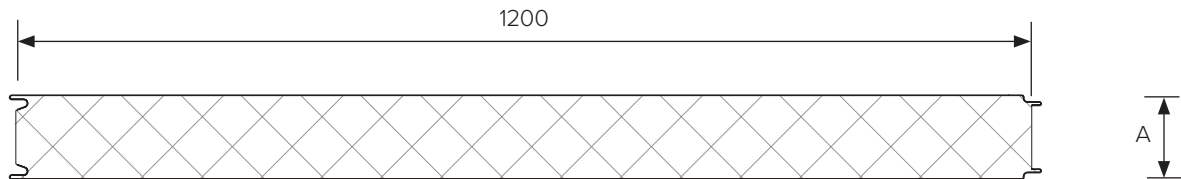
Metalcraft Insulated Panels is the certificate holder of CodeMark (GM-CM30078) for ThermoSpan and Thermopanel Insulated EPS Panels. CodeMark is a third party certification, allowed for under the Building Act 2004. This means that under law, a Building Consent Authority must accept the specification of 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 Options = A
50, 75, 100, 125, 150, 175, 200 & 250mm

INNER PROFILE OPTIONS

Thermopanel consists of 0.59mm steel bonded to an EPS core with a ceiling panel sheet bonded to the underside. Thermopanel has a flame retardant additive to the EPS core and is available in a range of colour and ceiling profile finishes.

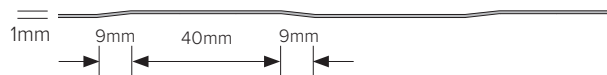
FLAT FINISH - AVAILABLE BOTH SIDES



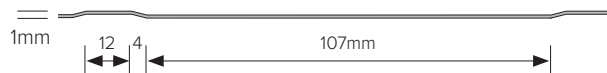
SILKLINE FINISH - AVAILABLE 1 SIDE ONLY



MESA FINISH - AVAILABLE 1 SIDE ONLY



RIBBED FINISH - AVAILABLE BOTH SIDES



PRODUCT PROPERTIES

Core	EPS with flame retardant additive Class "S" Standard
External facing	0.59mm CP Grade Prepainted Galvanised Steel or Colorsteel® Endura® or Colorsteel® Maxx® The correct steel is dependent on the environmental category and corrosion zone. Please refer to Metalcraft.
Internal Facing	0.59mm CP Grade Prepainted Galvanised Steel
Width	1200mm
Length	Manufactured in Auckland so lengths are restricted by transportation to site. If longer than 15m check with Metalcraft.
Thickness	50mm, 75mm, 100mm, 125mm, 150mm, 175mm, 200mm, 250mm
Flame retardant additive	Yes - Thermopanel's EPS core has been treated with a flame retardant additive

THERMOPANEL

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 ²	11.30	11.60	12.00	12.30	12.70	13.0	13.30	14.00
U Value W/m ² K	0.76	0.51	0.38	0.30	0.25	0.22	0.19	0.15
R Value m ² K/W	1.32	1.97	2.63	3.29	3.95	4.60	5.26	6.60

THICKNESSES FOR CHILLERS & FREEZERS

Allow an additional 50mm thickness for walls and roofs exposed to direct sunlight.

- Consideration should be given to insulating floor detail.
- Values are guides only and are given for cool rooms operating under average ambient conditions.

CHILLERS / FREEZERS	
Temperature Degrees C	Panel Thickness
7.0 down to 3.0	75mm
3.0 down to -3.0	100mm
-3.0 down to -18.0	150mm
-18.0 down to -23.0	175mm
-23.0 down to -30.0	200mm

ISO 9705

Thermopanel 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

COLOURS

Thermopanel available in 19 standard colours* from New Zealand Steel in trusted brands: COLORSTEEL® ENDURA® and COLORSTEEL® MAXX®. Colour brochures and steel swatches are available on request.

*Excluding Ebony. This is due to heat build up on dark colours and in the worst case potential delamination of steel from the core.

LOADSPAN TABLE

THERMOPANEL LOADSPAN TABLE

FOR PERMISSABLE VALUE WIND PRESSURES (kPa)

Thickness (mm)	Span (mm)										
	2500	3000	3500	4000	4500	5000	6000	6500	7000	7500	800
50	1.61	1.12	0.82	0.63	0.49						
75		1.68	1.23	0.94	0.74	0.60					
100		2.24	1.64	1.26	0.99	0.80	0.56				
125		2.80	2.05	1.57	1.24	1.00	0.70	0.59			
150			2.46	1.89	1.49	1.20	0.84	0.71	0.61		
175			2.88	2.20	1.74	1.41	0.98	0.83	0.72	0.62	0.55
200				2.52	1.99	1.61	1.12	0.95	0.82	0.71	0.63
250					2.48	2.01	1.40	1.19	1.02	0.89	0.78

THERMOPANEL STRENGTH AND FIXING CAPACITIES

Metalcraft Panel Specification.

The panel strength data in this document applies to Metalcraft Panel with 0.59 mm steel skins structurally bonded to a core of "S" grade expanded polystyrene (EPS).

The steel has yield strength of 300 MPa.

Notes

- 1 Permissible pressure values incorporate a factor of safety of 1.8 on ultimate strength.
- 2 This table applies to live loads only. For dead loads (eg long term loads) the strength capacity is reduced – refer to Metalcraft in such cases.
- 3 Calculate Ultimate Limit State Value:
(kPa) = Permissible (kPa) Value from table x 1.8 (safety factor) x 0.9 (material factor).

METALCRAFT PANEL FIXINGS

- For Metalcraft Mushroom fixing with 10 mm threaded steel rod installed to Metalcraft details, Load Capacity perpendicular to face of the panel = 3 kN Permissible. Load Capacity parallel to and at the face of the panel = 1.0 kN Permissible.

40mm minimum embedment is required in timber and for steel a minimum three full threads into steel.

- For 4mm (5/16") aluminium rivets attaching thin metal sections to Metalcraft panel skins, shear capacity of the connection = 0.45 kN Permissible per-rivet. For the shear capacity of a multi riveted connection, add the shear capacity of each rivet, provided the rivets considered are spaced at or more than 100 mm.
- For a 14 gauge Tek screw with 25 diameter steel washer fixed through the panel, the permissible live load fixing capacity in the Metalcraft panel part of the connection is:
 - at 100 mm from the Metalcraft panel edge = 1.5 kN.
 - at 50 mm from the Metalcraft panel edge = 0.6 kN.

BRANCHES

AUCKLAND

139 Roscommon Road, Wiri, Auckland
T: 09 277 8844
sales@metpanels.co.nz

HAMILTON

9 Earthmover Cres, Burbush, Hamilton
07 849 3807
sales.hamilton@metpanels.co.nz

DISCLAIMER

As part of Metalcraft Insulated Panels policy of continued improvement, final specifications may vary from those contained in this publication. The company reserves the right at any time and without notice to change the design, materials or features and withdraw products from the market without incurring any liability whatsoever. This publication is issued as a general guide only and should not be treated as a substitute for technical advice. Contact with your nearest Metalcraft branch is recommended to confirm current specifications and availability.

For more information on Metalcraft Insulated Panels visit:
www.metalcraftgroup.co.nz.
Metalcraft Insulated Panels is part of United Industries Ltd.
For more information on United Industries visit:
www.unitedindustries.co.nz.



Metalcraft Insulated Panels are members of the Roofing Association, New Zealand.

Insulated Panel Council Australasia Ltd (IPCA Ltd) is a not for profit and third party certification industry body for Manufacturers, Installers and Distributors of Insulated Sandwich Panel products throughout Australasia.

For more information on IPCA visit:
www.insulatedpanelcouncil.org

