



THERMOPANEL AND THERMOSPAN INSULATED PANELS

PURPOSE

Metalcraft Insulated Panel Systems supplies Thermopanel and Thermospan Insulated Panels for use as load bearing and non-load bearing wall and roofing panels.

EXPLANATION

Thermopanel and Thermospan Insulated Panels are lightweight, thermally efficient, and supplied with ancillary components, necessary for installation.

They are fully finished internal/external panels manufactured from a core of expanded polystyrene (EPS) sandwiched between 0.59 mm layers of Colorsteel®.

The panels are available in a variety of colours and in the following thicknesses (mm): 50, 75, 100, 150, 200, 250, 300.

Thermopanel panels are supplied with a weathertight tongue and groove edge and are available smooth faced or with an indented pattern.

Thermospan panels are supplied in a variety of profiles, and the weathertightness of the connection relies on a lapped corrugation.



For further assistance please contact:



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SCOPE AND LIMITATIONS OF USE

Scope	Limitations
Location In all wind zones up to and including extra high as defined in NZS 3604:2011 or up to a specifically designed maximum wind pressure (ULS) of 2.5 kPa. All corrosion zones as defined in NZS 3604:2011.	▶ Where the system is to be used in a micro-climate (as defined in clauses NZS 3604:2011), Metalcraft Insulated Panels Systems is to be consulted.
At least 1 m to a relevant boundary, where used as a load bearing external wall panel. Within 1 m of a relevant boundary, where used as a non-load bearing external wall cladding panel and where unprotected wall is permitted.	▶ Must be in accordance with Acceptable Solution C/AS2
Building In new buildings where the relevant part of the building complies with the NZ Building Code or in existing buildings where the designer and installed have assured themselves that the relevant part of the building is adequate for the intended building work. Any building height up to a maximum design differential wind pressure of 2.5 kPa.	▶ Where the building has a building height greater than 10 m and upper floors contain sleeping uses or other property, then the external wall must be designed to ensure that vertical spread of flame does not exceed 3.5 m.
With a minimum roof pitch of 3°, where the panels are to be used as roof panels. In conjunction with a concrete, steel or timber sub-floor and flooring structure, where the panels are to be load bearing. In conjunction with steel or timber structural framing and a concrete, steel or timber sub-floor and flooring structure, where the panels are to be non-load bearing. With joinery that complies with NZS 4211:2008. Where material group 1S or less is required.	




USEFUL INFORMATION

For information on the design, installation and maintenance of Thermopanel and Thermospan Insulated Panels and for our warranty refer to www.metalcraftgroup.co.nz.

VERSION:

PERFORMANCE CLAIMS

If designed, installed and maintained in accordance with all Metalcraft Insulated Panel Systems requirements, the Thermospan and Thermopanel Insulated Panels will comply with or contribute to compliance with the following performance claims:

NZ Building Code clauses	Compliance statement	Demonstrated by
B1 Structure B1.3.1, B1.3.2, B1.3.3 (a), (b), (c), (e), (f), (g), (i), (j), (l), (m), (q), B1.3.4 (a), (b), (c), (d), (e)		> CodeMark certificate issued by Global-Mark. > Global-Mark is an accredited product certification body under section 263 of the Building Act 2004.
B2 Durability B2.3.1 (a)		
C3 Fire affecting areas beyond the fire source C3.4 (a)		
E2 External moisture E2.3.1, E2.3.2, E2.3.3, E2.3.4, E2.3.7 (b), (c)		
E3 Internal moisture E3.3.1, E3.3.4, E3.3.5, E3.3.6		
F2 Hazardous building materials F2.3.1		
H1 Thermal efficiency H1.3.1 (a), (b), H1.3.2E, H1.3.3 (c), (e)		
H1 Thermal Efficiency: H1.3.1 (a), (b), H1.3.2E, H1.3.3 (c) & (e)		

BASIS OF CERTIFICATION

Technical

- > Airey Consultants Ltd. (09/2016). *Metalcraft Bracing Systems*
- > Airey Consultants Ltd. (02/12/2016) *Re: Metalcraft wall panel structural performance.* ACL Ref 12190-01
- > BRANZ. (28/09/2005) *FAR 2489 Assessment of the Performance of Metal Clad Expanded Polystyrene Sandwich Panels in the AS ISO 9705 Room Fire Test.*
- > BRANZ. (16/12/2016) *BRANZ Type Test FI5953-TT [2016]*
- > Metalcraft Insulated Panel Systems. (06/2020) *Care & Maintenance of Metalcraft Insulated Panel System. V2*
- > Metalcraft Insulated Panel Systems. (06/2020) *Design & Installation Guide. V2*
- > Metalcraft Insulated Panel Systems. (06/2020) *Metalcraft Insulated Panel System Specification. V2*
- > Metalcraft Insulated Panel Systems. (14/12/2018) *Thermopanel EPS. External Wall Details*
- > Metalcraft Insulated Panel Systems. (14/12/2018) *Thermopanel EPS. Controlled Environment*
- > Metalcraft Insulated Panel Systems. (14/12/2018) *Thermospan EPS. Commercial Roofing*
- > Metalcraft Insulated Panel Systems. (14/12/2018) *Thermospan EPS. Residential Roofing*
- > New Zealand Steel. (12/2012) *Durability Statement for Colorsteel® products used in the manufacture of Insulated Panels used in structural applications.*
- > Redco NZ Ltd. (20/03/2013) *Re: Group Numbers for Metalcraft Insulated Panel Products ThermoPanel & Thermospan EPS – Group Number 1-S and Group Number 2.*
- > Redco NZ Ltd. (02/2014) *Screw Fixing For Roof Panel Metalcraft Insulated Panel Systems.*

- > Scion. (22/06/2016) Results. P21:2010 – 1200mm Polystyrene SIP
- > Scion. (23/06/2016) Results. P21:2010 – 610mm Polystyrene SIP
- > Scion. (23/06/2016) Results. P21:2010 – 2400mm Polystyrene SIP
- > WEC. (n.d.) *Performance tests on Metalcraft Insulated Panel façade system in accordance with AS/NZS 4284:2008 'Testing of Building Facades'.* Test Report 1437

Quality

- > Global-Mark. Audit of Metalcraft Insulated Panel Systems manufacturing facilities
- > Global-Mark. Review and Audit of Metalcraft Insulated Panel Systems Quality Plan and associated manufacturing

Buildability

- > Global-Mark NZ Site Audits.

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www.metalcraftgroup.co.nz



1. Where a standard is referenced it is to be read as amended by the acceptable solution or verification method as applicable.
2. Sources of information also include the Building Act 2004 and its regulations, including the Building Code (Schedule 1 of the Building Regulations 1992), Acceptable Solutions and Verification Methods, and relevant cited standards.

Metalcraft Insulated Panels confirms that if Thermospan and Thermopanel is used in accordance with the requirements of this pass™ the product will comply with the Building Code and other performance claims set out in this pass™ and the company has met all of its obligations under s14 G of the Building Act.

Date of first issue:

Date of current issue:

NZBN: 9429036310852

Kevin Brunton

Kevin Brunton, Technical Director, TBB confirms that this pass has been prepared on behalf of the Metalcraft Insulated Panels and in accordance with MBIE PTS guidelines and in accordance with the TBB pass™ process which is within the scope of TBB's ISO 9001 certification.

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