



# METALCRAFT INSULATED PANELS **ASPIREPANEL**

## **PURPOSE**

Metalcraft Insulated Panels Limited supply Aspirepanel for use as insulated, fire-resistant, fully finished wall and roof panel.

#### **EXPLANATION**

Aspirepanels are lightweight, thermally efficient wall and roof panels manufactured in New Zealand. The panels have a polyisocyanurate (PIR) core sandwiched between 0.59 mm layers of galvanised steel and with a factory applied Colorsteel\* finish. The Colorsteel\* finish will depend on the specific exposure zone and use.

The panels are 1000 m in width, custom lengths and in the following thicknesses (mm): 50, 75, 100, 125, 150, 200, 250, 300. The thickness depends on the thickness of PIR core. The thickness determines thermal performance and span capability.

The panels are supplied with a tongue and groove joint and a lapped corrugation on both edges. The facings are available in the following profiles:

> Flat smooth profile

> Silkline

`	Mesa
	Mesa
>	Ribbed indented.





please contact:

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+64 9 277 8844 0

sales@metpanels.co.nz

www.metalcraftpanels.co.nz

## SCOPE AND LIMITATIONS OF USE

Scope	Limitations
Location	
In all wind zones up to and including extra high wind zone as defined in NZS 3604:2011 or a calculated wind design pressure (ULS) of 2.5 kPa.	> In accordance with Aspirepanel load span tables.
With a snow loading of up to 1 kPa.	
In all exposure zones as defined in NZS 3604:2011.	> Where the system is to be used in a microclimate (as defined in clause 4.2.2, NZS 3604:2011), Metalcraft Insulated Panels is to be consulted.
	In exposure zone D, Colorsteel <sup>®</sup> Maxx <sup>®</sup> must be specified.
	In exposure zone C, Colorsteel® Maxx® or Endura® may be specified.
	In exposure zone B, any Colorsteel <sup>®</sup> product may be specified.
Any proximity to a relevant boundary.	
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 installer have assured themselves that the relevant part of the building is adequate for the intended building work.	<ul> <li>In accordance with Aspirepanel load span tables.</li> <li>Fixings must be appropriate for loads as given by AS/NZS 1170 Set.</li> </ul>
In all building uses.	> Where compliance with G3.3.2 (a, b) is required, Colorsteel <sup>®</sup> CP-Antibacterial must be specified for the internal facing of the panel.
As a wall panel.	> Where the panels are to be load-bearing, they must be installed in conjunction with steel or timber structural framing and on a concrete slab or subfloor structure.
	With joinery that complies with NZS 4211:2008.
	> Where fire-resistance rating (FRR) for passive fire protection is required, the passive fire protection systems must be specifically designed.
	> For buildings less than 10 m in building height.
As a roof panel.	> With a minimum roof pitch of 3°.

# CONDITIONS

The specification and installation of Aspirepanel are to be in accordance with the ThermoPanel EPS specification and installation. This documentation is available from https://www.metalcraftgroup.co.nz/products/metal-insulated-panels/products/thermopanel-eps/.

## **USEFUL INFORMATION**

For information on the design, installation and maintenance of Aspirepanel, and for our warranty, refer to www.metalcraftpanels.co.nz.

## **OTHER CERTIFICATIONS AND APPROVALS HELD BY NZ STEEL ASSURANCE:**

As the manufacturer of the steel that is used in the manufacture of Aspirepanel, New Zealand Steel Ltd. provides assurance that the steel:

> has been manufactured in accordance with AS 1397-2001

is coated in accordance with AS/NZS 2728:2013 or galvanized in accordance with AS/NZS 2312.2:2014.

New Zealand Steel Ltd. has established an Environmental Management System certified to ISO 14001.

For more information on the specific exposure zones and environmental impacts of the product, refer to www.colorsteel.co.nz.

#### **PERFORMANCE CLAIMS**

If designed, installed and maintained in accordance with all Metalcraft Insulation Panels requirements, Aspirepanel will comply with or contribute to compliance with the following performance claims:

NZ Building		BASIS OF COMPLIANCE
Code clauses	Compliance statement	Demonstrated by
<b>B1 Structure</b> B1.3.1, B1.3.2, B1.3.3 (a, b, e, f, h, j), B1.3.4 (b, c, d e)	ALTERNATIVE SOLUTION	Product is comparable to ThermoPanel EPS with respect to compliance with Clause B1. Compliance of ThermoPanel based on GlobalMark CodeMark certification evaluation (GlobalMark, 28/06/2017).
		> Span in accordance with Aspirepanel load span tables.
B2 Durability B2.3.1(a)	ALTERNATIVE SOLUTION	Product is comparable to ThermoPanel EPS with respect to compliance with Clause B2. Compliance of ThermoPanel based on GlobalMark CodeMark certification evaluation (GlobalMark, 28/06/2017).
C3 Fire affecting areas beyond	ACCEPTABLE SOLUTION	Steel melts at temperatures >750 °C (refer to para. C7.1.5, C/AS2).
the fire source	C/AS2 1st Edition June 2019	Material group 1S when tested to ISO 9705:1993 [BRANZ FI11055-001, 17/04/2019].
C3.4 (a) C3.5 C3.7 (b, c)		> Metalcraft Insulated Panel Systems confirmed the PIR core in Aspirepanel is the same as that tested in BRANZ Type Test FI11055-001.
<b>E2 External moisture</b> E2.3.1, E2.3.2, E2.3.3, E2.3.7 (b, c)	ALTERNATIVE SOLUTION	Product is comparable to ThermoPanel EPS with respect to compliance with Clause E2. Compliance of ThermoPanel based on GlobalMark CodeMark certification evaluation (GlobalMark, 28/06/2017).
<b>E3 Internal moisture</b> E3.3.1, E3.3.4, E3.3.5, E3.3.6	ALTERNATIVE SOLUTION	Product is comparable to ThermoPanel EPS with respect to compliance with Clause E3. Compliance of ThermoPanel based on GlobalMark CodeMark certification evaluation (GlobalMark, 28/06/2017).
<b>F2 Hazardous building materials</b> F2.3.1	ALTERNATIVE SOLUTION	Product is comparable to ThermoPanel EPS with respect to compliance with Clause F2. Compliance of ThermoPanel based on GlobalMark CodeMark certification evaluation (GlobalMark, 28/06/2017).
<b>G3 Food preparation and</b> <b>prevention of contamination</b> G3.3.2 (a, b)	ALTERNATIVE SOLUTION	Product is comparable to ThermoPanel EPS with respect to compliance with Clause G3. Compliance of ThermoPanel based on GlobalMark CodeMark certification evaluation (GlobalMark, 28/06/2017).
H1 Energy Efficiency H1.3.1 (a, b), H1.3.2E	ALTERNATIVE SOLUTION	> Determination of R-values and energy performance of PIR [DASCO, 30/08/2019].
Other performance		BASIS OF STATEMENT
statement	Performance statement	Demonstrated by
Aspirepanel will not contaminate potable water.	AS/NZS 4020:2005.	<ul> <li>Claimed by New Zealand Steel Ltd. [New Zealand Steel Ltd. 2018].</li> <li>BRANZ statement that metal roof is suitable [BRANZ, 2018].</li> </ul>

### **SOURCES OF INFORMATION**

- BRANZ. [17 April 2019] BRANZ TYPE TEST AS ISO 9705 & ISO 9705 FIRE TEST OF THERMOPANEL PIR. Report No. FI11055-001.
- BRANZ. Water. Harvesting rainwater. Retrieved from http://www.level.org.nz/ water/water-supply/mains-or-rainwater/harvesting-rainwater/. [Accessed on 25/06/2020].
- DASCO. [30/08/2019] Product Test Report. R-Value (m2.K/W). Test method: KS M 3809. Report No. DA-190830-22-01.
- Global-Mark. [28 June 2017] Metalcraft Insulated Panel System CodeMark Certificate of Conformity. Certificate No. GM-CM30078-RevC. Retrieved from https://www. building.govt.nz/assets/Uploads/building-code-compliance/certificationsprogrammes/product-certification-scheme/product-certificate-register/ metalcraft-insulated-panel-system.pdf. [Accessed on 18/06/2020].
- 1. Where a standard is referenced it is to be read as amended by the acceptable solution or verification method as applicable.
- 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.
- 3. The quality and assurance that the supplied products meet the performance claims stated in this pass<sup>™</sup> are the responsibility of the company that is the holder of this pass<sup>™</sup>.

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

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- red co Consulting Professional Engineers. [n.d.] Metalcraft suPIRspan Loadspan Curves.
- New Zealand Steel Ltd. [October 2018] Product technical statement v2018.1 Retrieved from https://tinyurl.com/y7hldxx6. [Accessed on 18/06/2020].
- New Zealand Steel Ltd. [October 2018] Environmental Categories, Warranty & Product Maintenance Recommendations. Retrieved from https://tinyurl.com/ y9paxqag. [Accessed on 18/06/2020].
- New Zealand Steel Ltd. [October 2018] Incompatible Materials. Retrieved from https://tinyurl.com/ybspk5y6. [Accessed on 18/06/2020].

Scan or click this QR code for a full download of Compliance Documentation for this pass™. www.metalcraftgroup.co.nz



#### Kevín Brunton

Kevin Brunton, Technical Director, TBB confirms that this pass has been prepared on behalf of 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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139 Roscommon Road, Wiri, Auckland > sales@metpanels.co.nz > 64 9 277 8844 > www.metalcraftpanels.co.nz