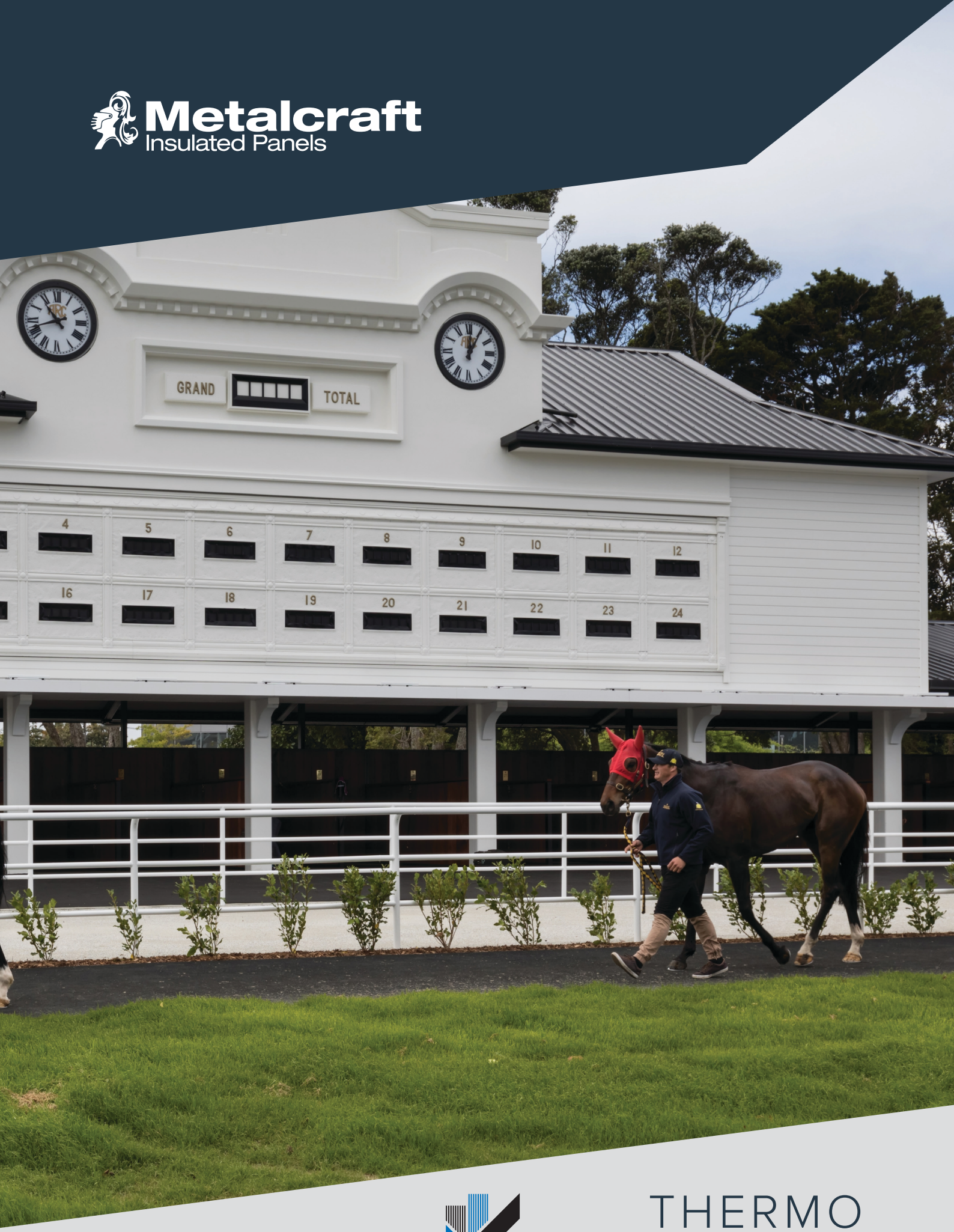
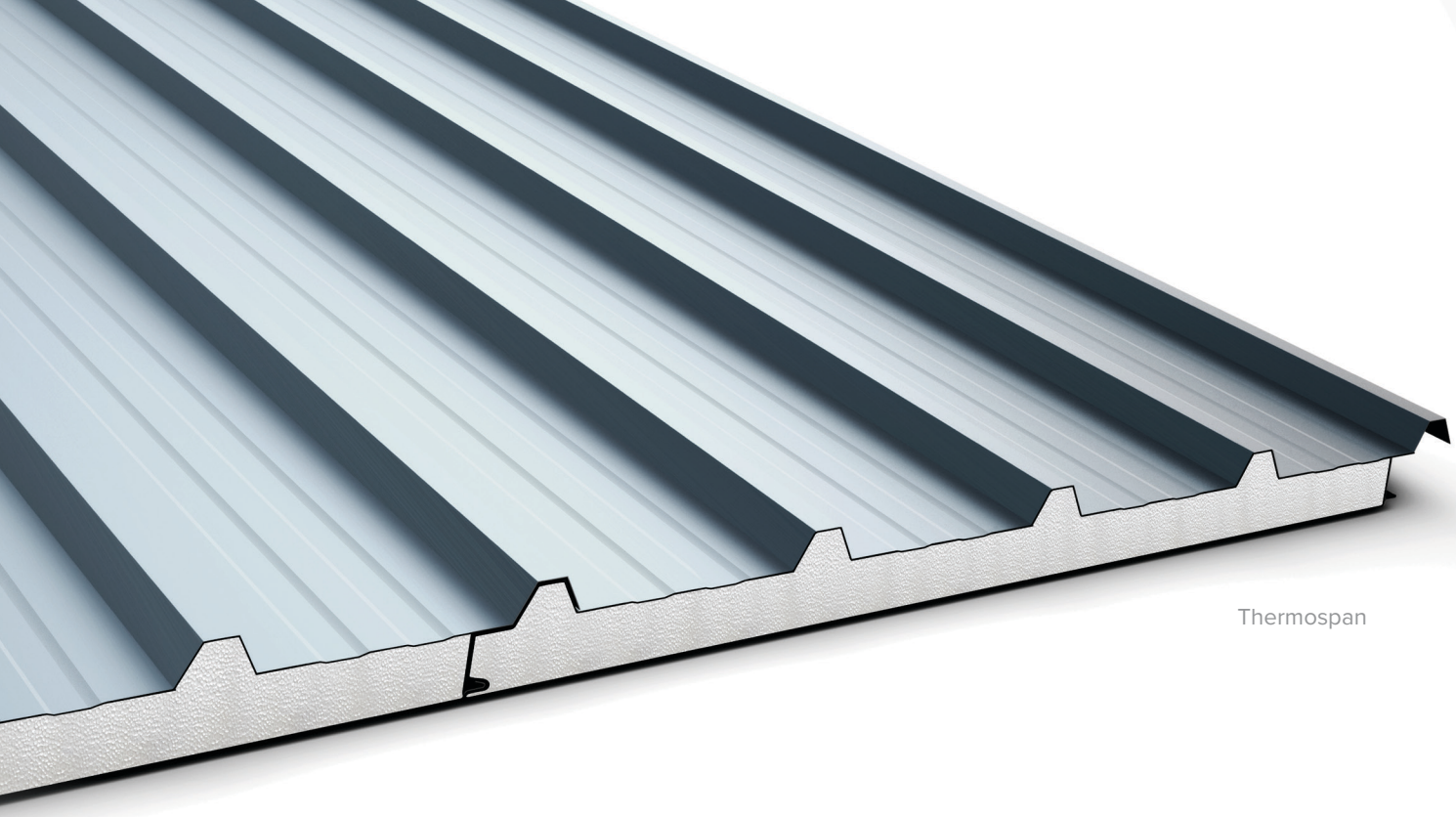
Metalcraft
Insulated Panels




CodeMark™
30078

# THERMO SPAN



Thermospan

# METALCRAFT INSULATED PANELS SPECIALISES IN THE MANUFACTURE AND SUPPLY OF INSULATED PANELS.

All are 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.

ThermoSpan consists of a 0.59mm profiled roofing sheet bonded to an EPS core with a ceiling panel sheet bonded to the underside. ThermoSpan does have a flame retardant additive but is not fire rated.

ThermoSpan can be used in a variety of residential and commercial, roof and wall cladding applications. ThermoSpan panel's are also available in a limited colour range from the Colorsteel® range of roof colours.

- Flame Retardant additive to EPS core
- Long Spans
- NZ manufactured - Longer sheet lengths
- Thermally Efficient
- Non ozone depleting
- Compatibility with openings and design elements of the building

## COMPLIANCE WITH THE NEW ZEALAND BUILDING CODE

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.

## CODEMARK®

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

## METALCRAFT CODEMARK EXPLAINED

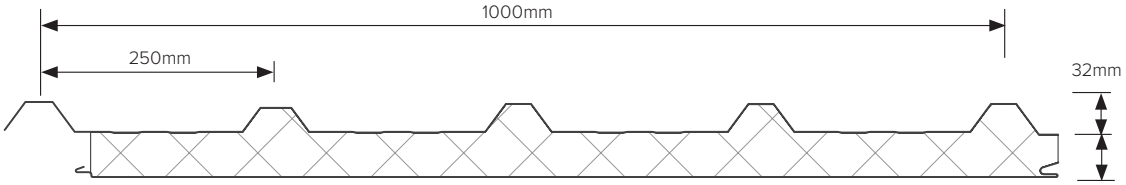
Metalcraft Insulated Panels is the certificate holder of CodeMark (GM-CM30078) for ThermoSpan and ThermoPanel Insulated EPS Panels. CodeMark is a third party certification, allowed for under the Building Act 2004. This means that under law, a Building Consent Authority must accept the specification of 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 that, 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




Panel Thickness = 50, 75, 100, 125, 150, 200, 250mm.

## INNER PROFILE OPTIONS

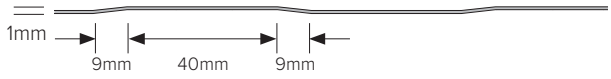
ThermoSpan consists of a 0.59mm profiled roofing sheet bonded to an EPS core with a ceiling panel sheet bonded to the underside. ThermoSpan has a flame retardant additive to the EPS core and is available with a range of colour and ceiling profile finishes.

FLAT FINISH

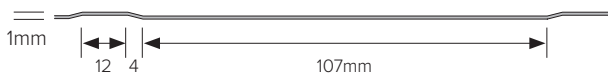


SILKLINE FINISH


MESA FINISH




RIBBED FINISH




| 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 | 1000mm |
| Length | Manufacutred in Auckland so lengths are restricted by transportation to site. If longer than 15m check with Metalcraft. |
| Thickness | 50mm, 75mm, 100mm, 125mm 150mm, 200mm, 250mm |
| Fire Rated | No |
| Fire Resistant | No |
| FM Approved | No |

# THERMO SPAN

## THERMAL

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

| Panel Thickness (mm) | 50 | 75 | 100 | 125 | 150 | 200 | 250 |
|---|---|---|---|---|---|---|---|
| Mass (Kg/$m^2$) | 11.30 | 11.60 | 12.00 | 12.30 | 12.70 | 13.30 | 14.00 |
| U Value (W/$m^2$K) | 0.76 | 0.51 | 0.38 | 0.30 | 0.25 | 0.19 | 0.15 |
| R Value ($m^2$K/W) | 1.32 | 1.97 | 2.63 | 3.29 | 3.95 | 5.26 | 6.58 |

## MINIMUM PITCH

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

Building designed with widely spaced purlins and portal frames may require a frame pitch increase of 1.2%.

- Min. roof slope of 3 degree applies

## ISO 9705

ThermoSpan conforms to the requirements of the NZBC and has achieved a group 1S.
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 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 engineerd design, please consult Metalcraft Insulated Panels.

# BRANCHES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Metalcraft Insulated Panels

For more information on Metalcraft Insulated Panels visit:
www.metalcraftgroup.co.nz.
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www.unitedindustries.co.nz.


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