

suPIR™ span

suPIR SPAN IS MANUFACTURED USING NZ STEEL – COLORSTEEL®, FOR CONSISTENT COLOUR MATCHING ACROSS OUR RANGE OF LONGRUN ROOFING, RAINWATER GOODS AND FLASHINGS.

LOCALLY MADE FOR LONGER LENGTHS AND QUICKER SUPPLY

suPIR span 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

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.

WHAT IS PIR?

Polyisocyanurate (PIR) board is a thermoset, medium density, high strength foam, which will char when exposed to flame.

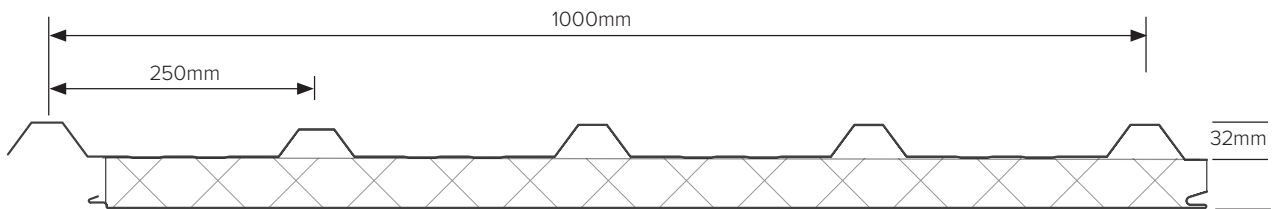
FEATURES & BENEFITS

suPIR span a stressed skin sandwich panel, comprised of pre-painted steel skins continuously laminated over a fire retardant PIR core. suPIR span is available in a range of colours with a variety of profile finishes, providing greater strength in walls and a clean, smooth aesthetic look.

- Fire retardant core
- Longer spans
- Shorter lead times
- Thermally efficient
- Efficient concealed fixing system
- Ease of cutting and trimming on site
- Minimal mess on site
- Manufactured locally using local and imported products
- NZ Steel - COLORSTEEL® colours for perfect colour match with flashings

STYLE & PERFORMANCE

PANEL DIMENSIONS



INNER PROFILE OPTIONS

suPIR span consists of a 0.59mm profiled roofing sheet bonded to a PIR board and with a ceiling panel sheet bonded to the underside.

suPIR span is available with a range of colour and ceiling profile finishes.

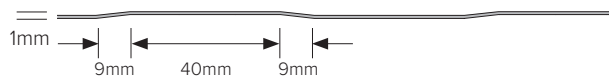
FLAT FINISH



SILKLINE FINISH



MESA FINISH

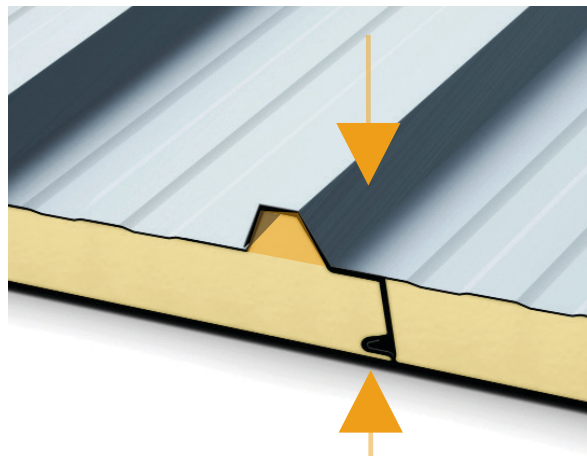


RIBBED FINISH



INTERLOCKING SLIP JOINT

suPIR span has a strong interlocking slip joint.



The interlocking inner skin helps assist suPIR span in providing greater resistance of downward forces.

COLOURS

suPIR span is 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.

THERMAL

For other thicknesses, please consult Metalcraft Insulated Panels.

Panel Thickness (mm)	50	75	100	125	150	200	250
Mass (Kg/m ²)	13.15	14.10	15.05	16.0	16.95	18.85	20.75
Thermal Resistance R Value (m ² K/W) @15 degreeC	2.43	3.65	4.87	6.185	7.5	9.49	11.82

PRODUCT PROPERTIES

Core	Polyisocyanurate (PIR) Density 37Kg/m ³
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 consult Metalcraft Insulated Panels.
Internal Facing	0.59mm CP Grade Prepainted Galvanised Steel
Cover Width	1000mm
Length	Manufactured in Auckland so lengths are restricted by transportation to site. If longer than 15m please consult with Metalcraft.
Thickness	50mm, 75mm, 100mm, 125mm 150mm, 200mm, 250mm
Fire Rated	No
FM Approved	No

INTERNAL SPREAD OF FLAME

suPIR span conforms to the requirements of the NZBC and has achieved a group 1S. Specific installation requirements are needed and available if required.

ROOF NOISE

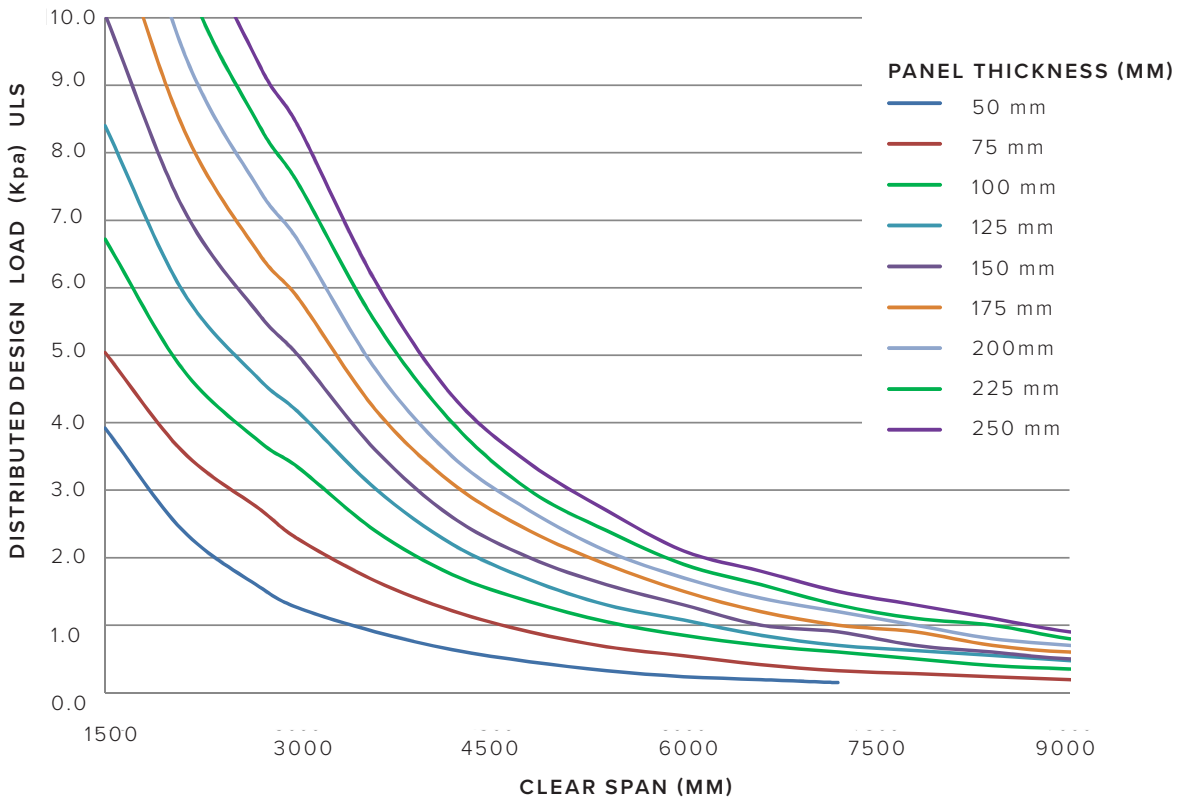
Metalcraft Insulated Panels advise the use of light colours and expansion detailing for long panels to mitigate potential noise issues that might arise within a suPIR span roof.

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.

SUPIR SPAN LOADSPAN TABLE

FOR UNIFORM WIND LOADS



3 STEP PANEL SELECTION

1. Determine thermal performance requirement
2. Determine worst case fully factored design wind load that applies to any roof panel (kPa) in ULS (Ultimate limit State)
3. Select appropriate span versus thickness.

LIMITATIONS TO SPAN TABLE

- The load span chart shown above is suitable only for walls and roofs under wind loading ULS.
- Deflection limit of $\text{Span} / 150$ for SLS has been applied.
- For long term loads such as snow, and for imposed loads when panels are used as floors, consideration of shear will be important and specific engineered design is required, please consult Metalcraft Insulated Panels.

METALCRAFT PANEL FIXINGS

- Fixing with 14g tek screws (or equivalent) at each rib are required. Wall cladding is typically pan fixed.
- Min. roof slope of 3 degree applies.

NOTES:

1. The maximum permissible pull-out load on a rib fixing is 1.8kN. 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 suPIR span
 - 1000 mm for 75mm suPIR span
 - 1200 mm for 100mm or thicker.

Longer cantilevers can be expected on thicker panels and require specific engineered design, please consult Metalcraft Insulated Panels.

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DISCLAIMER

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Image on front is Thermospan. suPIR span uses the same profile as Thermospan and has a PIR core.

Front cover image copyright: Simon Devitt©



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