IPA

Industrial Panel Australia

- PIR Insulation Core
- Fire Resistant
- Superior Insulation
- Environmentally Friendly
- Light Weight
- Easy to Install
- Cost Effective

COLDSPAN

Insulated Panels for a
Clean World

FM
APPROVED

Industrial Panel Australia

INDUSTRIAL PANEL AUSTRALIA

Industrial Panel Australia (IPA) are producers and suppliers of the 'SPAN Panels' range of lightweight, fire-resistant, steel faced composite insulated panels with PIR foam cores.

Our state of the art manufacturing facility uses the latest in European technology and with offices nationally you can have full peace of mind when choosing IPA 'SPAN Panels' for your next project.

WHAT IS PIR

Polyisocyanurate (PIR) is a rigid polyurethane foam, made as all rigid polyurethanes are, by mixing two chemical streams (Isocyanate and Polyol) with appropriate catalysts and a blowing agent. PIR is one of the highest rating commercially available materials in terms of insulation and fire-resistance for buildings.

COLDSPAN Panels are manufactured using n-pentane as the blowing agent because it has zero ozone-depleting potential.
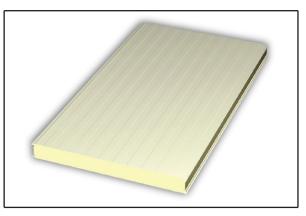
COLDSPAN PANELS

COLDSPAN is an FM certified, lightweight, fire-resistant and energy efficient insulated controlled environment panel system.

COLDSPAN panels are a single component, factory controlled pre-engineered internal wall and ceiling system that combines aesthetic finish, insulation, weather sealing and simple installation in one product. With PIR foam core and 0.50mm thick steel facings COLDSPAN is available in thicknesses between 55mm and 200mm, a range of profiles and colours and is supplied in lengths up to 11.85m (longer lengths are available in some instances) ready for installation.

COLDSPAN Thermal performance (R values) ranges between 2.6190W/m²K to 9.5238W/m²K providing various levels of thermal, fire and span performance to meet different requirements and the most stringent design criteria.

COLDSPAN

COLDSPAN panels are part of an engineered solution and can have a maximum self-supporting wall height up to 16m and maximum self-supporting ceiling span up to 8.6m. COLDSPAN panels can be used as freestanding or as a cladding on a self-supporting metal frame.

Like all 'SPAN Panels' COLDSPAN is FM approved. The use of COLDSPAN panels with their fire-resistant PIR foam core eliminates the problems that plagued early use of EPS insulated panels in food processing plants. IPA PIR panels do not propagate to fire and the ease of installation, improved energy efficiency and variety of optional skin coatings make them the ideal choice for a wide range of applications.
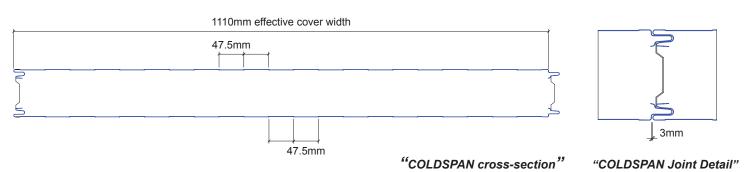
COLDSPAN PANELS AT A GLANCE

✓ 1110mm effective cover width   ✓ 11850mm max length   ✓ 1500mm min length

► COLDSPAN is an FM Approved, cost effective, fire-resistant commercial and industrial wall and ceiling insulation system

► COLDSPAN is produced using G300 grade 0.50mm coil coated internal and external steel facings

► COLDSPAN is available in core thicknesses of 55mm, 80mm, 100mm, 120mm, 140mm, 150mm, 170mm and 200mm (other thicknesses available on request) providing various levels of thermal, fire and span performance to meet different requirements and the most stringent design criteria

► COLDSPAN provides a uniform insulating value throughout your building thanks to the state of the art production facilities and the latest production methods

► COLDSPAN possesses a special fire-rated joint geometry providing effective foam-to-foam contact for maximum thermal insulation while increasing structural integrity against fire

► COLDSPAN is an environment friendly building element which uses n-Pentane as the blowing agent with zero ozone depleting potential and has no carbon emission.

PANEL CROSS-SECTION

1110mm effective cover width

47.5mm

47.5mm

3mm

"COLDSPAN cross-section"   *"COLDSPAN Joint Detail"*

PRODUCT SPECIFICATIONS

Insulation core is rigid cellular fire-resistant "polyisocyanurate" (PIR) foam with 95% closed-cell content, 40±2 kg/m³ density, applied in a continuous-line laminator with foam laydown technology and λ = 0.021 W/mK thermal conductivity.

Blowing agent is environment-friendly n-Pentane 95 gas (Zero ODP).

External and internal metal facings are 0.50mm thick corona treated, hot-dip galvanized G300 grade carbon steel with AZ150 protective coating.

Top finish is 5+20 microns thick, RAL9002 coloured Polyester coating, applied with coil-coating technology (different coating options and colours available upon request).

External profile Low Rib is standard with Micro Wave, Groove and Micro Line as options.

Internal profile Low Rib is standard with Micro Wave, Groove and Micro Line as options.

APPLICATIONS

COLDSPAN panels are ideal for cool rooms - cold stores - freezers - controlled environments - clean rooms - laboratories - food processing centres - warehouses - food handling and preparation areas and internal 'box within a box' applications.

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FIRE PROPERTIES

COLDSPAN Panels are certified to FM Approvals Standards 4880 and 4881 as Class 1 without height restriction. COLDSPAN panels have passed vigorous testing including:

- ✓ 16ft High Parallel Panel Test
- ✓ Large Scale Room Fire Test
- ✓ Flame Spread Test
- ✓ Surface Burning Characteristics

When exposed to a real fire situation, COLDSPAN panels;

- ✓ Do not spread flame.
- ✓ Give off minimal smoke
- ✓ Preserve their insulation properties
- ✓ Preserve their structural integrity
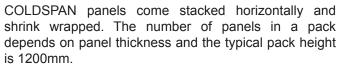- ✓ Self-extinguish when the fire source is removed

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PACKAGING AND DELIVERY

COLDSPAN panels come stacked horizontally and shrink wrapped. The number of panels in a pack depends on panel thickness and the typical pack height is 1200mm.

All deliveries to the project site (unless arranged otherwise) will be by containerised road transport for safety, security and ease of handling.

PEACE OF MIND

COLDSPAN Panels are available with a conditional up to 25 year thermal and structural performance warranty.

ACOUSTICS

COLDSPAN panels have a predicted single figure weighted sound reduction value of Rw = 24dB.

EXTERNAL AND INTERNAL PROFILES

COLDSPAN panels have Low Rib profiles as standard however these profiles are also available.

Low Rib Profile

Groove Profile

Micro Wave Profile

Micro Line Profile

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THERMAL PERFORMANCE AND WEIGHT TABLE

Panel Type	Panel Thickness (mm)	Panel Width (mm)	Outer Sheet (mm)	Outer Sheet Material	Inner Sheet (mm)	Inner Sheet Material	Thermal Performance		Weight (kg/m^2)
							U (W/m^{2}K)	R (m^{2}K/W)	
COLDSPAN Wall & Ceiling Panel	55	1110	0.50	Steel	0.50	Steel	0.3818	2.6190	10.828
	80		0.50	Steel	0.50	Steel	0.2625	3.8095	11.828
	100		0.50	Steel	0.50	Steel	0.2100	4.7619	12.628
	120		0.50	Steel	0.50	Steel	0.1750	5.7143	13.428
	140		0.50	Steel	0.50	Steel	0.1500	6.6667	14.228
	150		0.50	Steel	0.50	Steel	0.1400	7.1429	14.628
	170		0.50	Steel	0.50	Steel	0.1235	8.0952	15.428
	200		0.50	Steel	0.50	Steel	0.1050	9.5238	16.628

FREESTANDING WALL AND CEILING SPAN GUIDE

Panel Type	Panel Thickness (mm)	Panel Width (mm)	Outer Sheet (mm)	Outer Sheet Material	Inner Sheet (mm)	Inner Sheet Material	Max. Wall Height (m)	Max. Ceiling Span (m)
COLDSPAN Wall & Ceiling Panel	55	1110	0.50	Steel	0.50	Steel	4.00	3.00
	80		0.50	Steel	0.50	Steel	6.00	4.00
	100		0.50	Steel	0.50	Steel	8.00	5.00
	120		0.50	Steel	0.50	Steel	10.00	6.00
	140		0.50	Steel	0.50	Steel	12.00	6.60
	150		0.50	Steel	0.50	Steel	13.00	7.00
	170		0.50	Steel	0.50	Steel	14.00	8.00
	200		0.50	Steel	0.50	Steel	16.00	8.60

* Panels must be installed in accordance with the standards described in IPA brochures.
* Panels must be installed at least 300mm into the floor level below top finish.
* Concrete kerb stone of at least 500mm must be installed to both sides of walls.
* These values represent the maximum wall & ceiling span which can be covered with a single panel without use of intermediate steel supports and ceiling suspension sets.

THE IPA 'SPAN PANELS' RANGE

Environmentally friendly 'SPAN Panels' provide a cost effective and lightweight alternative to traditional building solutions. All 'SPAN Panels' ROOFSPAN – WALLSPAN – COLDSPAN with their steel facings and PIR foam cores, are available with FM Approvals certification and comply with Australian building regulations.

'SPAN Panels' offer cost effective insulated wall and roof solutions for a wide range of projects including warehouses, supermarkets, bulky goods, retail outlets as well as controlled environments, commercial, industrial, educational and housing developments.

Please refer to IPA corporate and product brochures for further information.

Industrial Panel Australia Pty Ltd
36 Warman Street Neerabup WA 6031
Tel: +61 8 9306 2009 Fax: +61 8 9306 5009
www.industrialpanel.com.au | info@industrialpanel.com.au

*Industrial Panel Australia also have offices in
New South Wales – Queensland – Victoria
Please contact us for details*