



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

# ROOFSPAN

Insulated Panels for a  
Clean World



# INSULATED SANDWICH PANELS

## ROOFSPAN PANELS

### 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.

### ROOFSPAN PANELS

**ROOFSPAN is an FM certified, lightweight, fire-resistant and energy efficient roofing solution suitable for commercial, industrial and residential applications.**

ROOFSPAN panels are a single component, factory controlled pre-engineered roofing system that combines aesthetic finish, insulation, weather sealing and simple installation in one product. With PIR foam core and 0.50mm thick internal and external steel facings, ROOFSPAN is available in a range of thicknesses, profiles and colours. It is supplied cut to length ready for installation.

ROOFSPAN Durarib and ROOFSPAN Megarib panels are available in lengths up to 11.85m (longer lengths are available in some instances) and in thicknesses between 50mm and 150mm with thermal performance (R values) between 2.7143W/m<sup>2</sup>K and 7.4276W/m<sup>2</sup>K, providing various levels of thermal, fire and span performance to meet varying requirements and the most stringent design criteria.

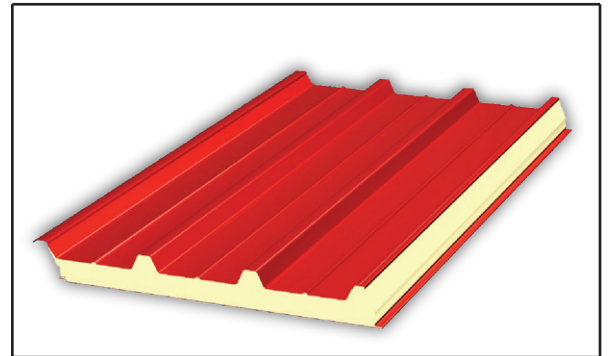
Like all 'SPAN Panels' ROOFSPAN Durarib and ROOFSPAN Megarib are FM approved and provide a fire-resistant and lightweight alternative roofing solution requiring less purlins. It offers ease of installation with improved energy efficiency.

**ROOFSPAN Flexirib** – is a super lightweight roofing product with all the benefits of a composite panel for use where FM approval is not required. ROOFSPAN Flexirib offers a cost effective alternative to traditional solutions. Available with a 0.50mm thick steel outer facing and an aluminium foil reinforced Kraft paper inner facing.

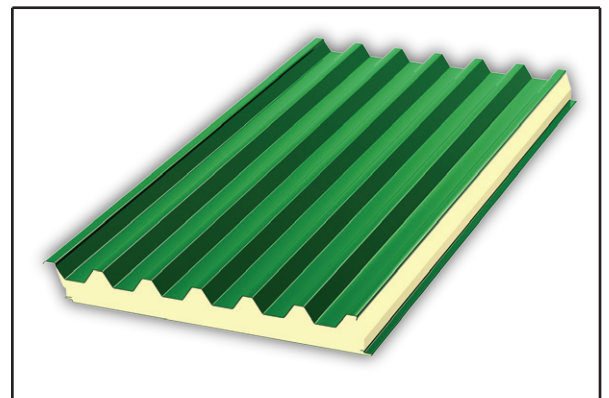
### WHAT IS PIR

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.

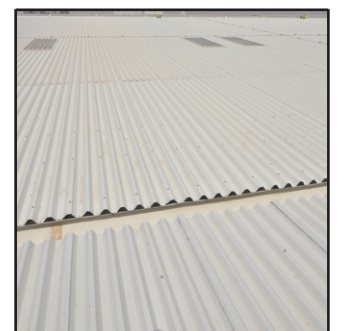
ROOFSPAN Panels are manufactured using n-pentane as the blowing agent because it has zero ozone-depleting potential.



ROOFSPAN Durarib



ROOFSPAN Megarib





# INSULATED SANDWICH PANELS

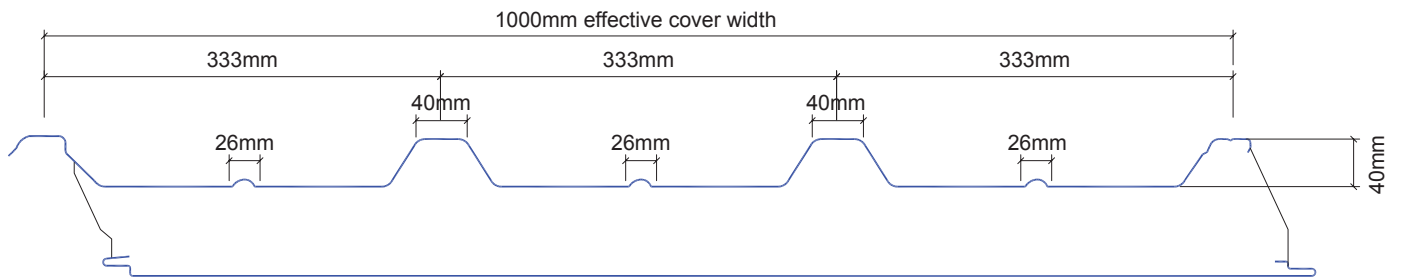
## ROOFSPAN PANELS

### ROOFSPAN PANELS AT A GLANCE

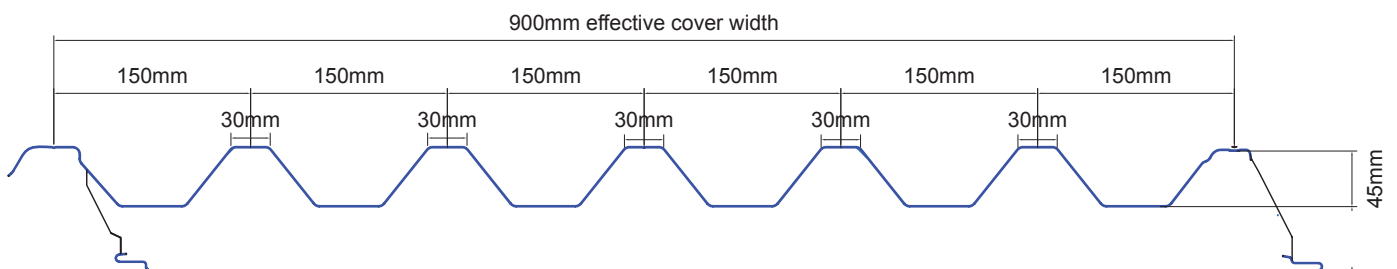
- ✓ ROOFSPAN Durarib 1000mm effective cover width
- ✓ ROOFSPAN Megarib 900mm effective cover width
- ✓ 11850mm max length
- ✓ 1500mm min length
- ✓ 11850mm max length
- ✓ 1500mm min length

- ▶ ROOFSPAN is an FM Approved, cost effective, fire-resistant commercial and industrial roof and ceiling insulation system designed and manufactured for Australian conditions
- ▶ ROOFSPAN is produced using G300 grade 0.50mm coil coated steel for the internal and external facings
- ▶ ROOFSPAN Durarib is available in core thicknesses of 50mm, 75mm, 100mm and 150mm, ROOFSPAN Megarib in core thicknesses of 45mm, 70mm, 95mm and 145mm (other thicknesses available on request) providing various levels of thermal, fire and span performance to meet different requirements and the most stringent design criteria
- ▶ ROOFSPAN provides a uniform insulating value throughout your building thanks to the state of the art production facilities and the use of the latest production methods
- ▶ ROOFSPAN Durarib has a corrugated external profile for increased panel strength and with a clean, painted, and hygienic surface to the underside it often completely eliminates the need for additional suspended ceiling systems
- ▶ ROOFSPAN Megarib provides further increased panel strength with its 7-ridge external profile design allowing for longer spans and meets the demands of extreme weather conditions
- ▶ ROOFSPAN is an environment friendly building element which uses n-Pentane as the blowing agent with zero ozone depleting potential and has no carbon emission

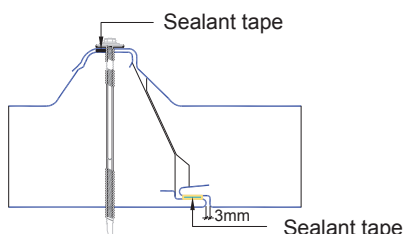
### PANEL CROSS-SECTION



**“ROOFSPAN Durarib cross-section”**



**“ROOFSPAN Megarib cross-section”**



**“ROOFSPAN Joint Detail”**

# INSULATED SANDWICH PANELS

## ROOFSPAN PANELS

### PRODUCT SPECIFICATIONS

**Insulation core** is rigid cellular fire-resistant “polyisocyanurate” (PIR) foam with 95% closed-cell content,  $40\pm 2$  kg/m<sup>3</sup> density, applied in a continuous-line laminator with foam laydown technology and  $\lambda = 0.021$  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).

**ROOFSPAN Durarib External profile** is with 4 ridges, 40mm ridge height and 333mm valley width.

**ROOFSPAN Megarib External profile** is with 7 ridges, 45mm ridge height and 150mm valley width.

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

### APPLICATIONS

Widely used in the construction of warehouses, retail outlets, commercial, industrial, agricultural, educational, residential, offices and mix use developments.

### FIRE PROPERTIES

ROOFSPAN Panels are certified to FM Approvals Standards 4471 and have passed vigorous testing including:

- ✓ Large Scale Room Fire Test
- ✓ Flame Spread Test
- ✓ Surface Burning Characteristics

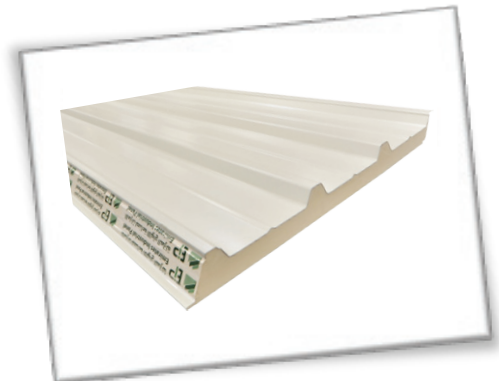
When exposed to a real fire situation, ROOFSPAN panels;

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

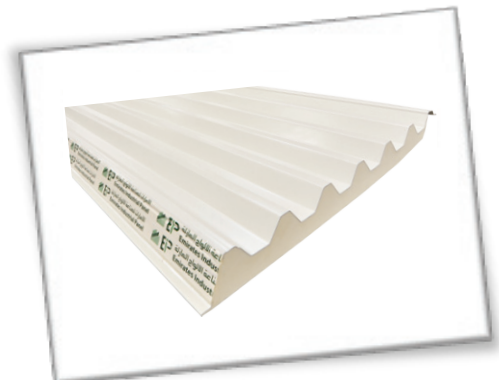
### PACKAGING AND DELIVERY

ROOFSPAN 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.



ROOFSPAN Durarib



ROOFSPAN Megarib



# INSULATED SANDWICH PANELS ROOFSPAN PANELS

## ACOUSTICS

ROOFSPAN panels have a predicted single figure weighted sound reduction value of  $R_w = 24\text{dB}$ .

## PEACE OF MIND

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

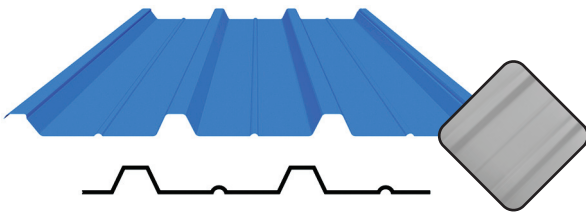


## EXTERNAL AND INTERNAL PROFILES

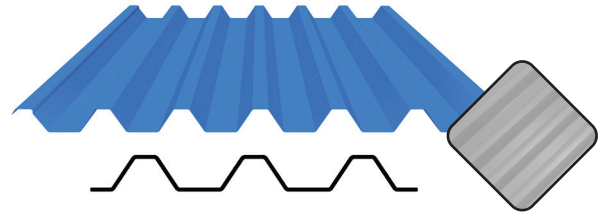
ROOFSPAN Durarib and ROOFSPAN Megarib panels have Durarib and Megarib external profiles respectively.

All ROOFSPAN panels' internal facings have Low Rib profiles as standard however these profiles are also available.

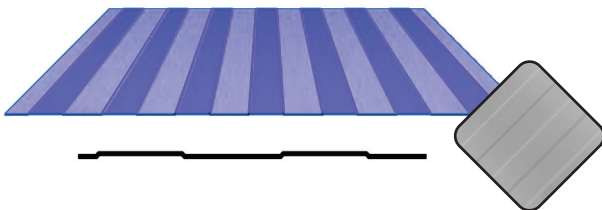
Durarib Profile



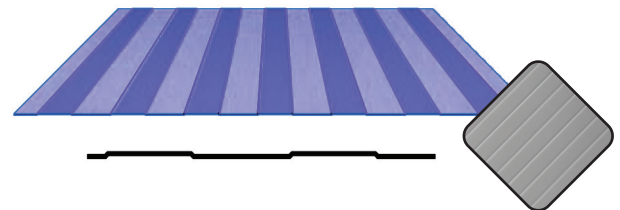
Megarib Profile



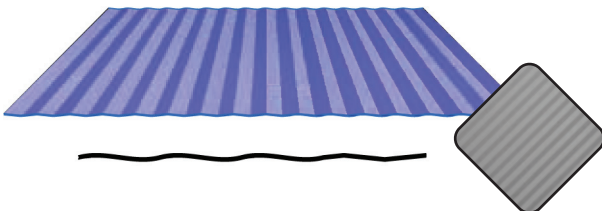
Low Rib Profile



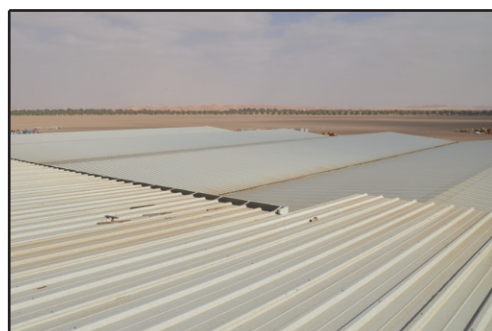
Groove Profile



Micro Wave Profile



Micro Line Profile



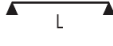

# INSULATED SANDWICH PANELS

## ROOFSPAN PANELS

### THERMAL PERFORMANCE AND WEIGHT TABLE - ROOFSPAN DURARIB

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 <sup>2</sup> )
							U (W/m <sup>2</sup> K)	R (m <sup>2</sup> K/W)	
ROOFSPAN Durarib Roof Panel	50	1000	0.50	Steel	0.50	Steel	0.4035	2.4783	11.183
	75		0.50	Steel	0.50	Steel	0.2805	3.5652	12.183
	100		0.50	Steel	0.50	Steel	0.2150	4.6522	13.183
	150		0.50	Steel	0.50	Steel	0.1465	6.8261	15.183

### LOAD / SPAN TABLE - ROOFSPAN DURARIB

Span Condition	Core Thickness	Load Type	Uniformly Distributed Loads (kN/m <sup>2</sup> )							
			Span L in Meters							
			1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00
Single-span 	50 mm	Downwards	3.21	2.02	1.40	1.00	0.75	0.58	0.47	0.30
		Upwards	6.98	4.52	3.18	2.32	1.69	1.26	1.02	0.82
	75 mm	Downwards	3.94	2.61	1.89	1.41	1.09	0.86	0.71	0.57
		Upwards	9.23	6.23	4.48	3.07	2.13	1.57	1.26	1.01
	100 mm	Downwards	4.63	3.16	2.33	1.78	1.40	1.12	0.93	0.78
		Upwards	11.33	7.82	5.67	3.62	2.51	1.85	1.46	1.18
	150 mm	Downwards	6.68	4.96	3.89	3.16	2.63	2.15	1.85	1.56
		Upwards	18.39	13.53	10.11	5.63	3.74	2.70	2.08	1.69
Multi-span 	50 mm	Downwards	3.21	2.02	1.40	1.00	0.75	0.58	0.47	0.37
		Upwards	4.45	2.75	1.90	1.39	1.10	0.90	0.80	0.69
	75 mm	Downwards	3.94	2.61	1.89	1.41	1.09	0.86	0.71	0.58
		Upwards	4.96	3.04	2.15	1.74	1.31	1.08	0.94	0.85
	100 mm	Downwards	4.63	3.16	2.33	1.78	1.40	1.12	0.93	0.78
		Upwards	5.45	3.22	2.56	1.89	1.51	1.22	1.05	0.94
	150 mm	Downwards	6.68	4.96	3.89	3.16	2.63	2.15	1.85	1.64
		Upwards	7.87	5.04	4.26	3.36	2.83	2.35	2.08	1.97

\* Calculations have been based on panels with 0.50mm/0.40mm thick steel facings.

\* Calculations have been based on L/150 deflection value.



\* Calculations have been based on commercial grade carbon steel

\* For intermediate span values linear interpolation may be used.

### THERMAL PERFORMANCE AND WEIGHT TABLE - ROOFSPAN MEGARIB

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 <sup>2</sup> )
							U (W/m <sup>2</sup> K)	R (m <sup>2</sup> K/W)	
ROOFSPAN Megarib Roof Panel	50	900	0.50	Steel	0.50	Steel	0.3443	2.9048	12.231
	70		0.50	Steel	0.50	Steel	0.2593	3.8571	13.031
	95		0.50	Steel	0.50	Steel	0.1981	5.0476	14.031
	145		0.50	Steel	0.50	Steel	0.1346	7.4286	16.031

## LOAD / SPAN TABLE - ROOFSPAN MEGARIB

Span Condition	Core Thickness	Load Type	Uniformly Distributed Loads (kN/m <sup>2</sup> ) Span L in Meters							
			1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00
Single-span 	50 mm	Downwards	5.43	3.19	2.17	1.61	1.26	0.95	0.69	0.40
		Upwards	11.83	7.17	4.92	3.72	2.84	2.06	1.50	1.10
	70 mm	Downwards	5.61	3.35	2.31	1.73	1.38	1.27	0.94	0.70
		Upwards	12.98	7.91	5.43	3.81	2.75	2.37	1.72	1.30
	95 mm	Downwards	5.79	3.50	2.44	1.85	1.50	1.37	1.19	0.97
		Upwards	13.96	8.61	5.87	3.87	2.78	2.35	1.96	1.56
	145 mm	Downwards	8.35	5.50	4.06	3.28	2.80	2.64	2.38	1.99
		Upwards	22.65	14.89	10.48	6.02	4.14	3.45	2.80	2.24
Multi-span 	50 mm	Downwards	5.43	3.19	2.17	1.61	1.26	0.95	0.69	0.50
		Upwards	7.53	4.35	2.95	2.22	1.85	1.47	1.17	0.92
	70 mm	Downwards	5.61	3.35	2.31	1.73	1.38	1.27	0.94	0.72
		Upwards	7.03	3.85	2.56	2.13	1.67	1.57	1.25	1.07
	95 mm	Downwards	5.79	3.50	2.44	1.85	1.50	1.37	1.19	0.97
		Upwards	7.07	3.85	2.75	2.13	1.71	1.61	1.45	1.29
	145 mm	Downwards	8.35	5.50	4.06	3.28	2.80	2.64	2.38	2.03
		Upwards	9.84	6.04	4.59	3.77	3.20	3.11	2.88	2.69

\* Calculations have been based on panels with 0.50mm/0.40mm thick steel facings.  
\* Calculations have been based on L/150 deflection value.

\* Calculations have been based on commercial grade carbon steel  
\* For intermediate span values linear interpolation may be used.

## 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.**





# ROOFSPAN



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