

TRADITIONAL



SUPERIOR LIGHT AND VISUAL APPEARANCE

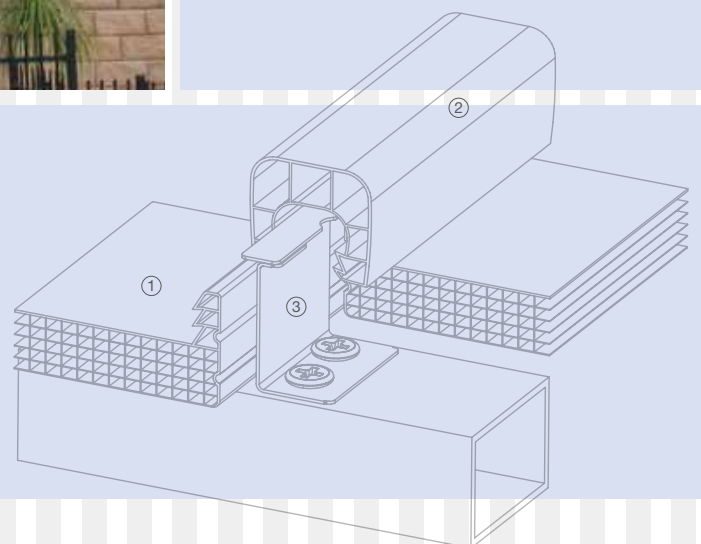
The Multicell structure transmits an even diffusion of natural light, producing a rich look similar to glass. Specifically designed for architectural daylight applications, the tight spacing between the ribs produces a superior quality of light and aesthetically appealing look.



MULTICELL

The Standing Seam Connection Method system consists of:

- ① Extruded translucent panels, with a vertical standing seam at both sides of the panel
- ② A snap-on connector interlocking the panels
- ③ Concealed stainless steel retention clips



Danpalon Multicell provides exceptional quality of light, a rich non-industrial visual appeal and delivers superior durability, thermal insulation and 99.9% UV protection. Danpalon multicell panels with this unique and innovative extrusion technology are available in a range of thicknesses and widths. Danpalon's unique Multicell extrusion technology provides more cells than traditional structures used in most polycarbonate sheets on the market. The smaller spans between the rib supports give you the best combination of translucency and strength.



EXTENDED UV PROTECTION

Danpalon also offers a co-extruded UV protection layer that results in longer panel life.

HIGH THERMAL INSULATION

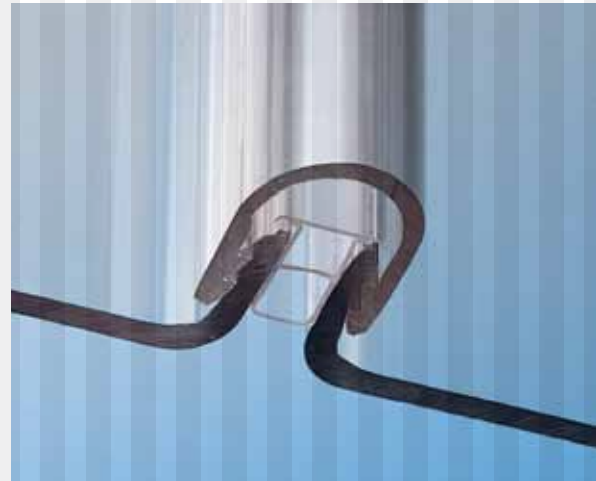
The Danpalon Multicell design features more cells and layers which gives the panel significantly less thermal conductivity.

HIGH IMPACT AND WEATHER RESISTANCE

Due to the tightness between the vertical supports, Multicell offers the highest resistance to impact and hail damage. The high concentration of cells provides Danpalon Multicell with improved mechanical properties and rigidity.



Danpalon Compact is a 4mm thick solid panel that provides a 'glass-like' appearance with the benefits of polycarbonate such as strength, insulating qualities, flexibility, lightweight and 99.9% UV protection. The Danpalon standing-seam connection system allows architects complete freedom to design spectacular glazed areas of unlimited size and shape. The entire assembly uses no caulking or adhesives, eliminating the difficulties of sealant and adhesive bond failure common to traditional systems. The Danpalon connection system is mechanical, dry and 100% effective.



DANPALON'S UNIQUE SYSTEM

The standing seam connecting method.
The Danpalon system consists of:

- Main transparent panels, extruded with a vertical standing seam at both sides of the panel.
- A snap-on connector (aluminium or transparent polycarbonate) interlocking the panels.
- A transparent polycarbonate spacer profile for 4mm Compact or concealed stainless steel Knee Fasteners for Multicell.

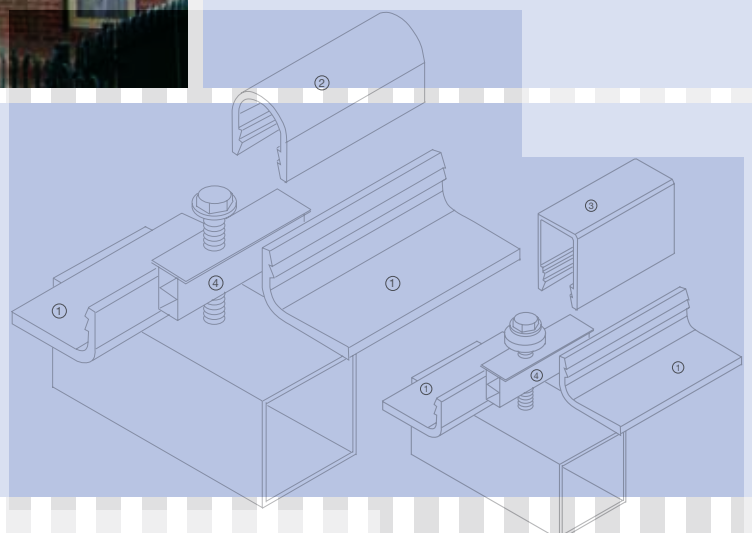
The system's installed module width is 600mm. The system is free floating. Every component is free to thermally expand or contract at its own rate, eliminating 'waves' or deflections and maintaining the structural properties for the life of the material.

COMPACT

The Compact system consists of:

- ① Transparent 4mm Compact panel, 592mm wide
- ② Transparent Polycarbonate Connector
- ③ Aluminium Connector
- ④ Transparent Polycarbonate Spacer

For high wind areas a special support plate should be used. Consult your distributor for further details.



LEGEND

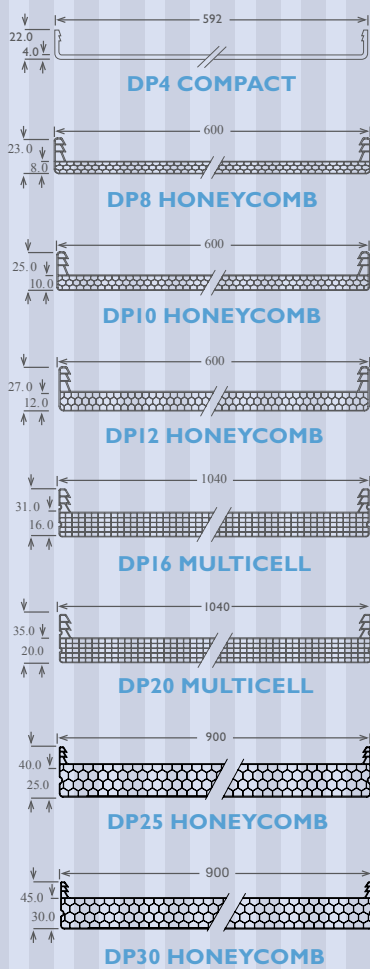
LT % of visible light transmission (400 - 700nm)

ST % of total solar radiation transmission (300 – 2800nm)






SR % of total solar reflection (300-2800nm)

SHGC Solar Heat Gain Coefficient.
Total solar energy transmitted through the panel
= %ST+0.2x(%st+%sr). Tests were performed
in accordance with ASHRAE 74-1988
procedures. Figures are indicative and may
change within manufacturers production
tolerances.

SHEET SIZES



OPTICAL AND SOLAR PROPERTIES

		COMPACT		HONEYCOMB		MULTICELL		HONEYCOMB	
		4mm	8mm	10mm	12mm	16mm	20mm	25mm	30mm
	REFLECTIVE GREY	LT%	20	20	20	20	20	20	20
		ST%	18	18	18	18	18	18	17
		SR%	33	33	33	33	33	33	27
		SHGC	0.28	0.28	0.28	0.28	0.28	0.28	0.28
	REFLECTIVE ICE	LT%		15	15	15	15	15	15
		ST%		25	25	25	25	25	25
		SR%		51	51	51	51	51	51
		SHGC		0.30	0.30	0.30	0.30	0.30	0.30
	OPAL	LT%	40	35	35	35	22	22	32
		ST%	44	38	38	38	28	28	38
		SR%	35	40	40	40	51	51	40
		SHGC	0.48	0.42	0.42	0.42	0.32	0.32	0.42
	BRONZE	LT%	38	25	25	25	35	35	30
		ST%	41	26	26	26	35	35	29
		SR%	12	18	18	18	30	30	19
		SHGC	0.50	0.37	0.37	0.37	0.42	0.42	0.39
	GREY	LT%	41	30	30	30	31	31	24
		ST%	51	35	35	35	38	38	31
		SR%	12	22	22	22	30	30	21
		SHGC	0.58	0.44	0.44	0.44	0.44	0.44	0.41
	ICE	LT%	55	60	60	60	51	51	68
		ST%	58	54	54	54	50	50	58
		SR%	26	32	32	32	38	38	34
		SHGC	0.61	0.57	0.57	0.57	0.52	0.52	0.60
	BLUE	LT%	64	50	50	50	49	49	50
		ST%	69	57	57	57	51	51	53
		SR%	17	27	27	27	38	38	32
		SHGC	0.72	0.60	0.60	0.60	0.53	0.53	0.56
	GREEN	LT%	75	60	60	60	44	44	60
		ST%	69	52	52	50	42	42	49
		SR%	17	32	32	32	33	33	30
		SHGC	0.72	0.55	0.55	0.55	0.47	0.47	0.53
	CLEAR	LT%	89	71	71	71	63	63	68
		ST%	80	60	60	60	51	51	58
		SR%	17	36	36	36	40	40	34
		SHGC	0.81	0.61	0.61	0.61	0.53	0.53	0.60
	GOLD	LT%		25	25	25	28	28	
		ST%		23	23	23	27	27	
		SR%		31	31	31	28	28	
		SHGC		0.32	0.32	0.32	0.36	0.36	
	ORANGE	LT%		40	40	40	36	36	
		ST%		45	45	45	39	39	
		SR%		15	15	15	24	24	
		SHGC		0.53	0.53	0.53	0.46	0.46	
	PURPLE	LT%		44	44	44	32	32	
		ST%		55	55	55	43	43	
		SR%		20	20	20	27	27	
		SHGC		0.60	0.60	0.60	0.49	0.49	
	RED	LT%		20	20	20	18	18	
		ST%		45	45	45	39	39	
		SR%		22	22	22	24	24	
		SHGC		0.51	0.51	0.51	0.46	0.46	
	YELLOW	LT%		58	58	58	50	50	
		ST%		52	52	52	45	45	
		SR%		26	26	26	26	26	
		SHGC		0.56	0.56	0.56	0.50	0.50	
	DARK OPAL	LT%		11	11	11	11		
		ST%		18	18	18	18	18	
		SR%		53	53	53	53	53	
		SHGC		0.24	0.24	0.24	0.24	0.24	

TEST COMPLIANCES

AS1170.1 - 2002	Balustrade Loadings
AS1170.2 - 1989	Wind Loads
AS1530.3 - 2009	Early Fire Hazard Test
AS1562.3 - 2006	Impact Test (includes 10 year old panels)
AS3837 - 1998	Heat and Smoke Release Rates (Fire Group 3)
AS3959 - 1998	Buildings in Bushfire Prone Areas
AS4040.1 - 1992	Resistance to Concentrated Loads
AS4040.2 - 1992	Resistance to Wind (non-cyclonic)
AS4040.3 - 1992	Resistance to Wind (cyclonic)
AS4040.4 - 2006	Resistance to Impact
BCA 2007 B1.2	Cyclonic Regions
BRANZ Appraisal 2006	Certificate 527
ROHS Compliant	Restriction of Hazardous Substance Lic 24727

SPECIFICATION

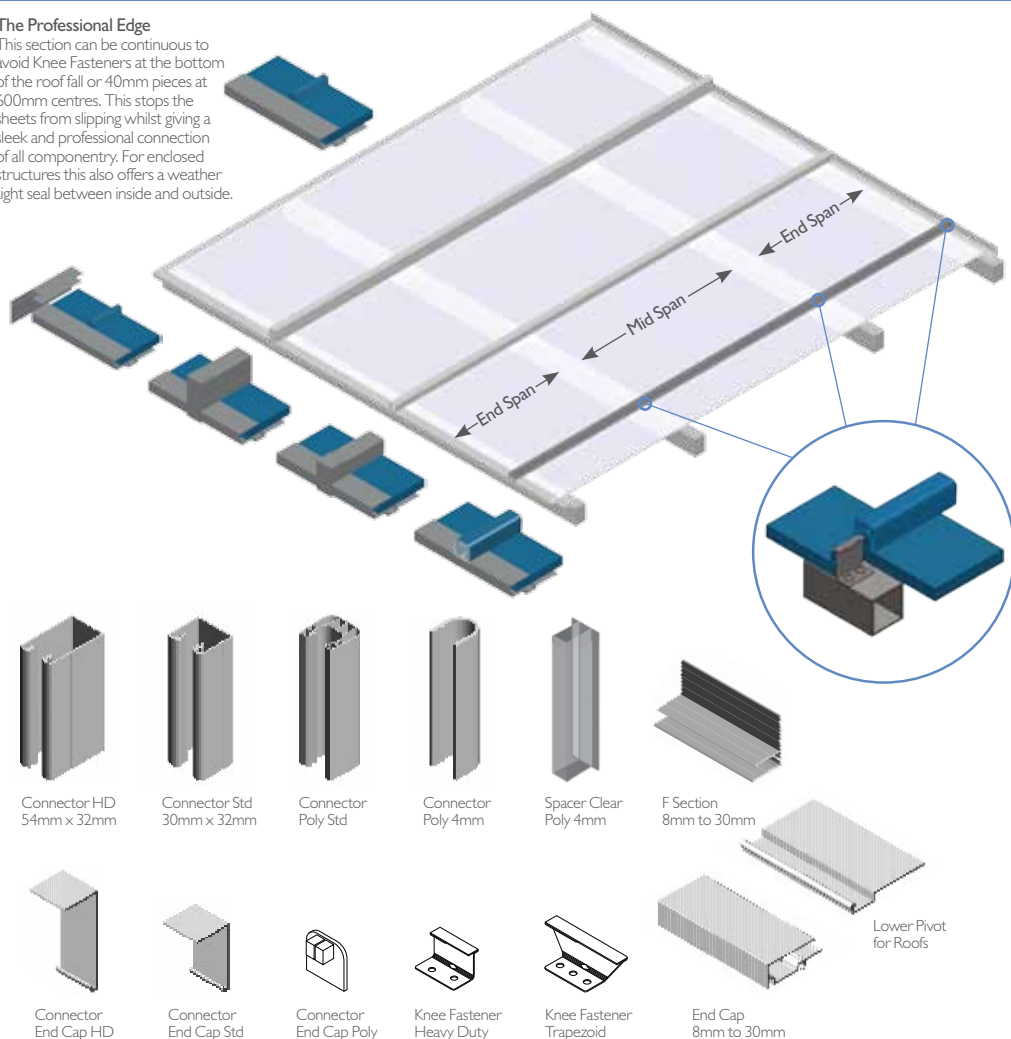
	COMPACT	HONEYCOMB			MULTICELL		HONEYCOMB	
	4mm	8mm	10mm	12mm	16mm	20mm	25mm	30mm
WIDTH (mm)	592	600	600	600	1040	1040	900	900
RAFTER SPACING (mm)	600	602	602	602	1042	1042	902	902
WEIGHT (g/m²)	5000	1830	2666	2840	3666	4150	4150	4333
MIN COLD BENDING RADIUS (mm)	2900	2200	2500	2600	2900	3400	3900	4200
U VALUE (w/m²C°)	5.36	2.46	2.11	1.84	1.53	1.53	1.57	1.51



DANPALON ACCESSORIES

The Professional Edge

This section can be continuous to avoid Knee Fasteners at the bottom of the roof fall or 40mm pieces at 600mm centres. This stops the sheets from slipping whilst giving a sleek and professional connection of all componentry. For enclosed structures this also offers a weather tight seal between inside and outside.



THE DANPALON SUPPORT SPACING GUIDE

		COMPACT 4mm	HONEYCOMB 8mm	HONEYCOMB 10mm	MULTICELL 16mm
Connector Polycarbonate Standard	MID SPAN	900	900	1100	1300
	END SPAN	700	700	800	900
Connector Aluminium Standard	MID SPAN	1400	1400	1600	1600
	END SPAN	1000	1000	1200	1200
Connector Aluminium Heavy Duty	MID SPAN	N/A	1600	1800	1800
	END SPAN	N/A	1200	1400	1400

ROOF FALL

A minimum pitch of 5° is recommended (87mm/1000mm). Having sufficient fall allows natural weather action to assist in keeping the sheets clean.

NOTE: End spans occur at both the top and bottom of a roof fall. For curved roofs and roofs with a slope greater than 25°, purlin spacings can be increased.

These spans are based on a design wind speed of 41m/s which equates to a 1kPa wind load.



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VIC 61-3-9459 4806
TAS 61-3-6344 7060

SA 61-8-8337 6599
WA 61-8-9279 1064
NZ 64-9-412 7470

www.danpalon.com.au



Manufacturer's Warranty: Danpalon polycarbonate sheets carry a 15 year limited manufacturers warranty, not to lose more than 8% of light transmission for the first 10 years and thereafter no more than 1% per year when measured in accordance with ASTM-E-1175. Danpalon polycarbonate sheets are warranted for 15 years from the purchase date, not to break as a result of the impact of hail measuring up to 20mm in diameter. These warranties shall only apply if the sheets are installed, used and maintained in accordance with Danpalon recommendations and specifications. Full Warranty details available on request. NOTE: Regulations differ from area to area, seek approval from your local council prior to building. Information in this brochure is subject to change without notice.

ISO9001 - 2000 Quality Management Standard ~ ISO14001 - 2004 Environmental Management Systems

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