

Danpalon®
Light Architecture

Light Architecture

Danpalon® is the complete daylighting solution offering exceptional quality of light, thermal insulation and UV protection with a rich non-industrial visual appeal. The Danpalon® system offers substantial physiological and psychological benefits in all work and living spaces.

Create With Natural Light

Use the translucency or transparency of the panels in design to transform buildings in to areas of light and colour, resulting in stunning effects during the day and through the night. Use the Danpalon® system for roofing, facades, cladding or partitions, both internally and externally.



Light

USA



Colors

Sweden



Arches

USA

Dan pal can offer to all professional architects and builders a complete creative solution. With the superior technical qualities of Danpalon®, design in confidence to create spaces of comfort and well being. Danpalon® is 'Light Architecture'.

The **Danpalon®** daylighting system is manufactured from the highest quality polycarbonate. The product's performance is certified by rigorous testing from worldwide institutions. It offers a new concept in architectural glazing providing outstanding performance and flexibility in design. The system consists of a main panel with snap-on connecting profiles made of aluminium or polycarbonate. The use of stainless steel fasteners allow for thermal expansion and eliminates the need for penetrations through the sheet, hence the structure is 100% watertight.

Standing Seam Connection



Walkway | *Australia*



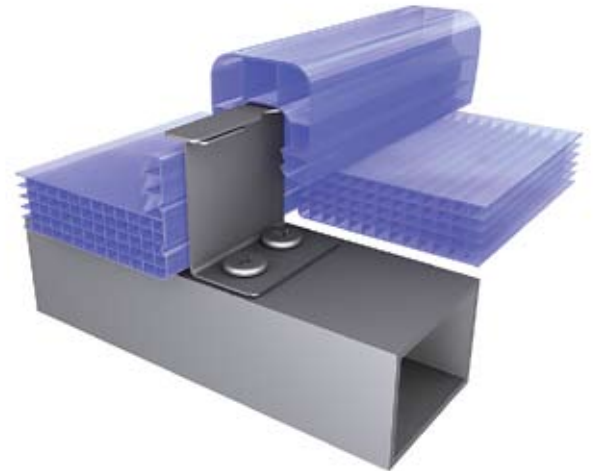
Dome | *Mexico*

The Heart of the Danpalon® System is The Standing Seam Connection Method. The system consists of:

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

The fully assembled system is free floating. Each component is free to thermally expand or contract at its own rate, eliminating “waves” or deflections and maintaining the structural properties of the material.

This technical superiority is appreciated through a wide range of quality installations throughout the world. The various colours, finishes and visual effects offer a great palette of creative options for all designers to use in realising their own unique designs.



Microcell

provides exceptional quality of light, a rich non-industrial visual appeal and delivers superior durability, thermal insulation and 99.9% Uv protection. Danpalon® Microcell panels with this unique and innovative extrusion technology are available in a range of thicknesses and widths.



Danpalon®'s unique Microcell extrusion technology provides ten times 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.

Superior Light and Visual Appearance

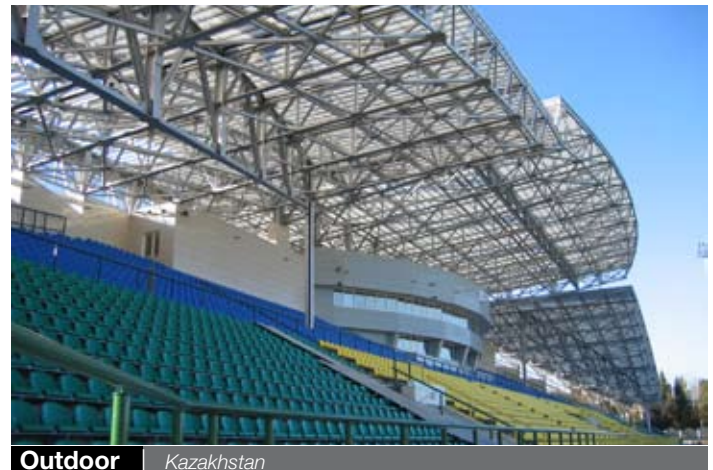
The Microcell structure transmits an even diffusion of natural light, producing a rich look similar to glass. Specifically designed for architectural daylight applications, the tight spacing between the ribs produces a superior quality of light and aesthetically appealing look, offering a refined alternative to the 'green-house look' associated with traditional twin-wall polycarbonate sheets.

High Thermal Insulation

The Danpalon® Microcell 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, Danpalon® Microcell offers the highest resistance to impact and hail damage. The high concentration of cells provides Danpalon® Microcell with improved mechanical properties and rigidity.



Compact



Worldwide | Spain

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.

What makes Danpalon® unique is the heart of the system

The standing seam connecting method.

The Danpalon® system consists of:

- Main transparent 4mm compact panels, 592mm wide, 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.

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



Skylight | Italy

HQE High Environmental Quality



Facade France

- Recent studies have found that prolonged exposure to artificial lighting can be damaging to one's physical and psychological health.
- Providing natural daylight can improve productivity by up to 10%.
- These benefits are particularly noticeable in retail and educational buildings.

The Danpalon® Microcell system provides the best light diffusion, eliminating glare from direct sunlight and creating a UV radiation -free environment.

The Danpalon® Microcell system saves energy:

1. It reduces the need for artificial lighting.
2. It offers more thermal insulation than any other day lighting system.

The Danpalon® Microcell system reduces the waste of natural resources:

1. It is 100% recyclable.
2. It reduces the need for air conditioning
3. It requires less framework because it is a light weight system.

Danpalon®
does more for
the health of
people and the
environment.

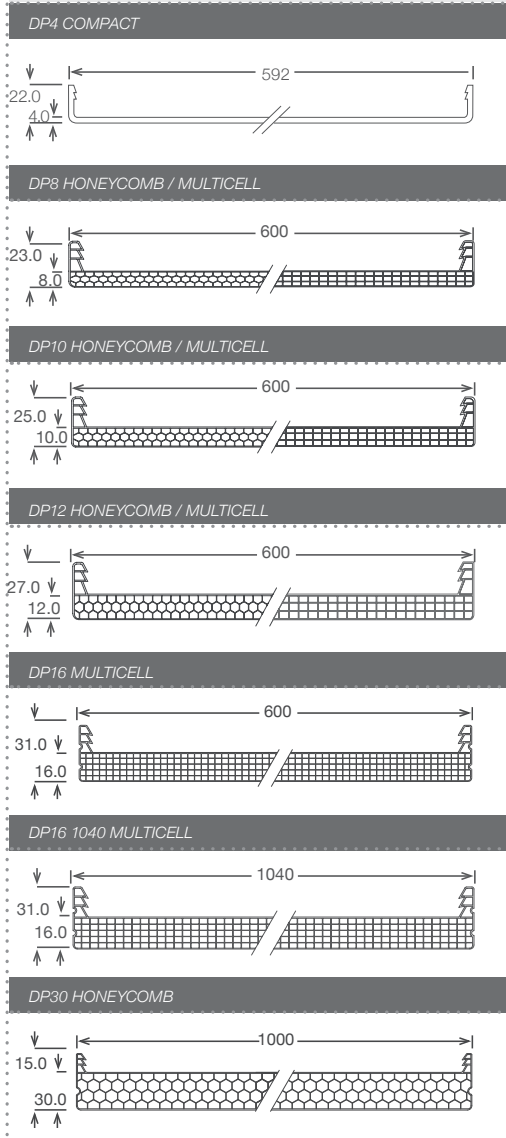


Controlite Spain



Decorative France

Panel Sizes



Optical and Thermal properties

		Compact 4mm	Multicell / Honeycomb 8mm	Multicell / Honeycomb 10mm	Multicell / Honeycomb 12mm	Multicell 16mm	Honeycomb 30mm
REFLECTIVE GREY	LT %	20	20	20	20	20	20
	ST %	18	18	18	18	17	17
	SR %	33	33	33	33	29	27
	SHGC	0.28	0.28	0.28	0.28	0.28	0.28
BRONZE	LT%	38	25	25	25	35	30
	ST%	41	26	26	26	35	29
	SR%	12	18	18	18	30	19
GREY	SHGC	0.50	0.37	0.37	0.37	0.42	0.39
	LT %	41	30	30	30	31	On Request
	ST %	51	35	35	35	38	
SR %	12	22	22	22	30		
OPAL	SHGC	0.58	0.44	0.44	0.44	0.44	
	LT %	40	35	35	35	22	32
	ST %	44	38	38	38	28	38
GREEN	SR %	35	40	40	40	51	40
	SHGC	0.48	0.42	0.42	0.42	0.32	0.42
	LT %	75	60	60	60	44	60
ICE	ST %	69	52	52	52	42	49
	SR %	17	32	32	32	33	30
	SHGC	0.72	0.55	0.55	0.55	0.47	0.53
BLUE	LT %	55	60	60	60	51	On Request
	ST %	58	54	54	54	50	
	SR %	26	32	32	32	38	
CLEAR	SHGC	0.61	0.57	0.57	0.57	0.52	
	LT %	64	50	50	50	49	50
	ST %	69	57	57	57	51	53
REFLECTIVE GREY	SR %	17	27	27	27	38	32
	SHGC	0.72	0.60	0.60	0.60	0.53	0.56
	LT %	89	71	71	71	63	68
BRONZE	ST %	80	60	60	60	51	58
	SR %	17	36	36	36	40	34
	SHGC	0.81	0.61	0.61	0.61	0.53	0.73

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[1-(%st+%sr)].

Tests were performed in accordance with ASHRAE 74-1988 procedures. Figures are indicative and may change within manufacturers production tolerances.

