

# DANPAL® ROOFING SYSTEMS

Modular Glazing  
Solution for Roofs



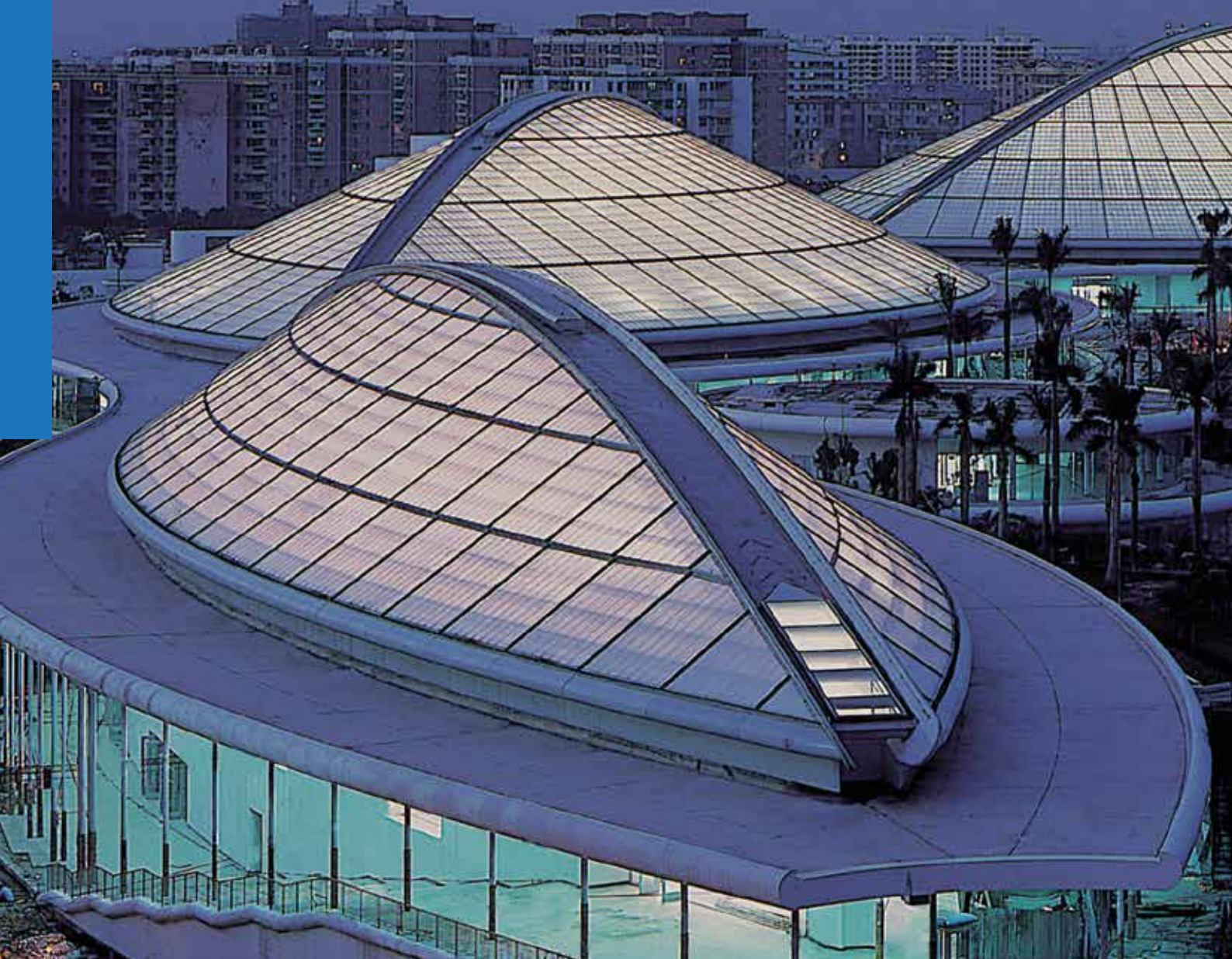
SKYLIGHT



OUTDOOR



# MODULAR GLAZING SOLUTION FOR ROOFING



Sports Complex, Guanzhou China | Danpal® Roofing System | Architect: Paul Andreu & Serge Carillion, ADPI Architecte



SINCE DANPAL® FIRST PIONEERED THE CONCEPT OF MECHANICALLY LOCKED POLYCARBONATE ROOFING, THEIR SYSTEMS HAVE TAKEN THE ARCHITECTURAL WORLD BY STORM WITH OUTSTANDING TECHNICAL AND AESTHETIC FEATURES. THE LARGE VARIETY OF COLOURS, FINISHES AND SPECIAL EFFECTS PROVIDE A DAZZLING ARRAY OF CREATIVE OPTIONS.



#### Take daylighting to another level

Danpal® Roofing System is a translucent dry glazed system available in a variety of configurations for various types of structures. The engineering and design flexibility of the system comes from its substantial range of snap-on dry-glazed connectors, made from either polycarbonate or aluminium.



# ROOFING SYSTEMS RANGE

## MADE WITH THE LATEST MICROCELL TECHNOLOGY - FOR TRANSLUCENCY AND STRENGTH

Danpal® Roofing systems are made with Microcell technology - the latest and most advanced system for architectural daylighting applications - ensuring long-term service capabilities. The system is suitable for wide range of weather conditions and offers high impact resistance. It is available in a large variety of color combinations and finishes.

## FOUR ROOFS SYSTEMS, TWO MODES OF INSTALLATION

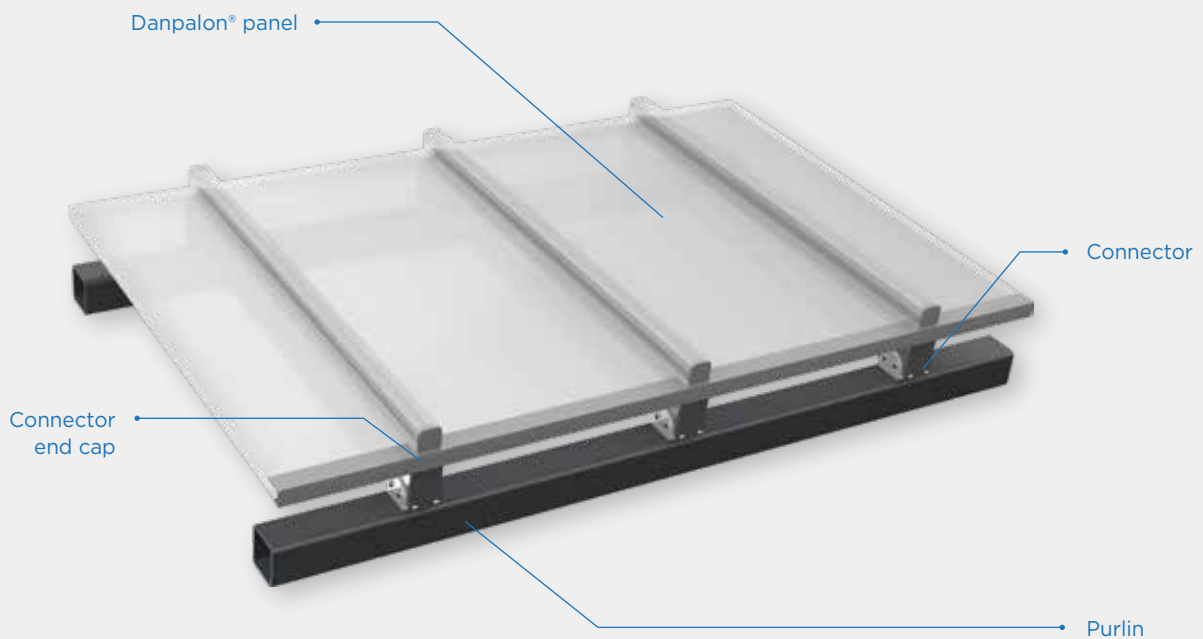
Danpal® offers four types of roofing solutions: Traditional, Spacer, Freespan and Seamless.

There are two different modes of installation for these applications: The exterior mode features the connectors on the outside, while the interior mode features the connectors on the inside.

### SYSTEM BENEFITS

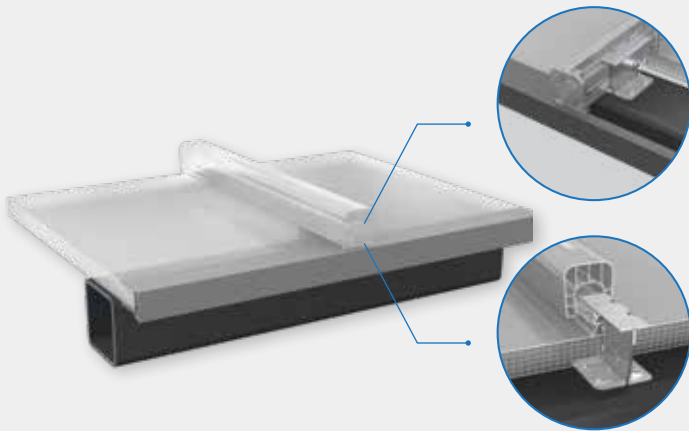
- 100% leakproof
- Lightweight
- Superior light and visual appearance
- Excellent thermal performance
- Superior air and water tightness
- High impact resistance
- Cold bending of panels on site

## STANDARD ROOF INSTALLATION



## SYSTEMS REQUIRING THE EXTERIOR INSTALLATION MODE

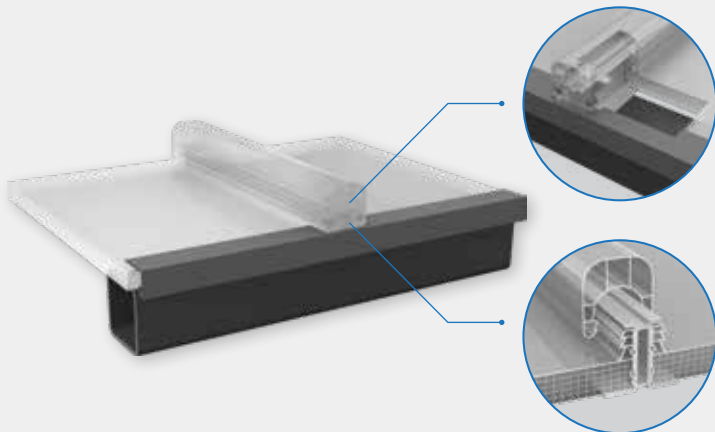
### TRADITIONAL SYSTEM



Centre de maintenance METTIS, Metz, France  
Danpal® Roofing System | Architect: Denu & Paradon

- Polycarbonate or aluminum connector
- Cold curving on site
- No fabrication required
- Attractive appearance due to concealed connectors

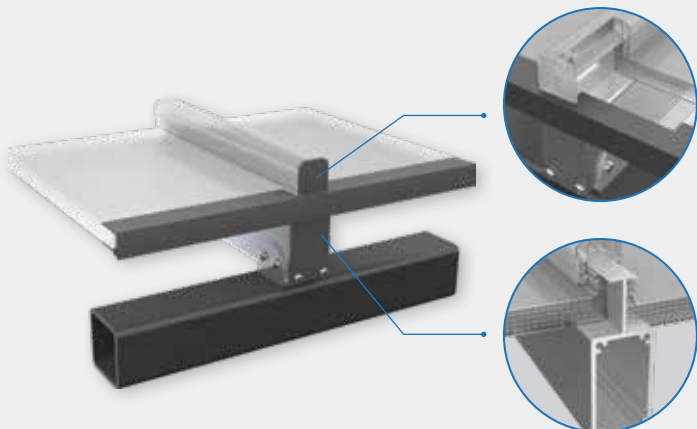
### ALU SPACER SYSTEM



Swimming Pool, Netanya, Israel | Danpal® Roofing System

- Convenient self-supporting system
- Cleaner appearance as framing requirements are reduced
- Simple connection to the building framework

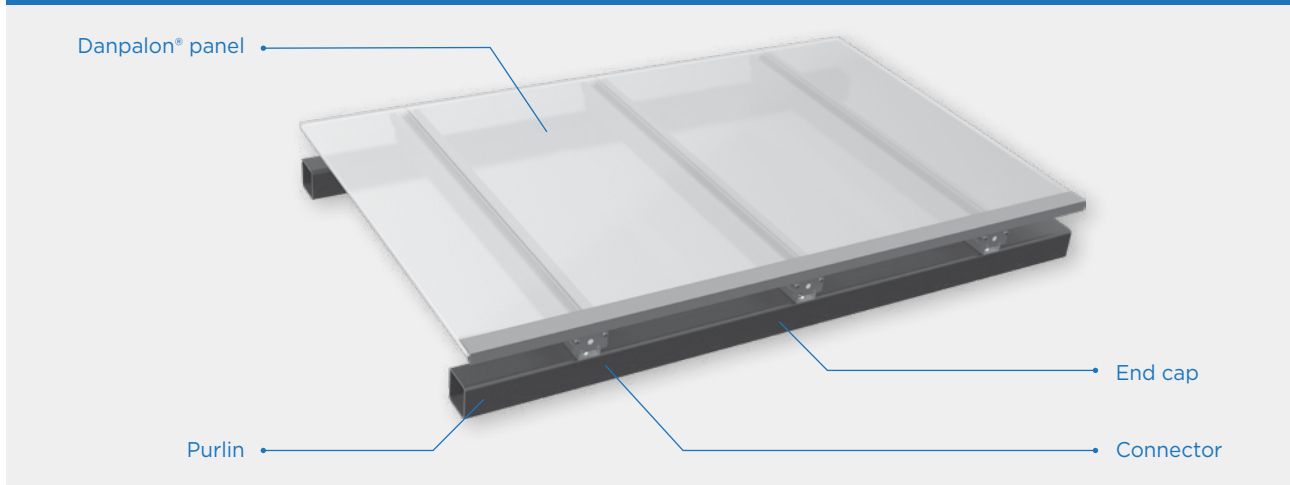
### FREE SPAN SYSTEM



2014 Asian Games Main Stadium, Korea | Danpal® Roofing System | Architects and Construction Heerim Construction, Modern Construction

- Excellent spanning capability
- Clean look from underneath

## REVERSE ROOF INSTALLATION



## SYSTEM REQUIRING THE INTERIOR INSTALLATION MODE



The Horse Riding Park, Jeju Island Jeju Hanrimeup  
Danpal® Roofing System | Architects: Jisan

- Flush external finish
- Simple connection to the building framework

## SUPERIOR LIGHT AND VISUAL APPEARANCE

The panel's unique structure - with tight spacing between the ribs - produces a superior quality of light and an aesthetically pleasing look. Using materials with excellent flexibility, transparency, and tonal qualities compared to glass, Danpal® delivers the perfect balance of light and thermal dynamics. Specifically designed for architectural daylight applications, it is available in various colours and light transmission options with either a glossy or a matt finish.

### HIGH THERMAL INSULATION

The unique cell structure of the panels provides better thermal insulation, resulting in improved 'U' and 'R' values to ensure greater energy efficiency.

### EXTENDED UV PROTECTION

Danpalon® panels offers a co-extruded UV protection that results in longer system life.

### HIGH IMPACT RESISTANCE & STRENGTH

Due to the panel's special cell structure it offers the highest resistance to impact. Extruded with standing seams, the panel's double tooth grip-lock connection ensures longevity in resistance to high winds, snow loads and hail damage.



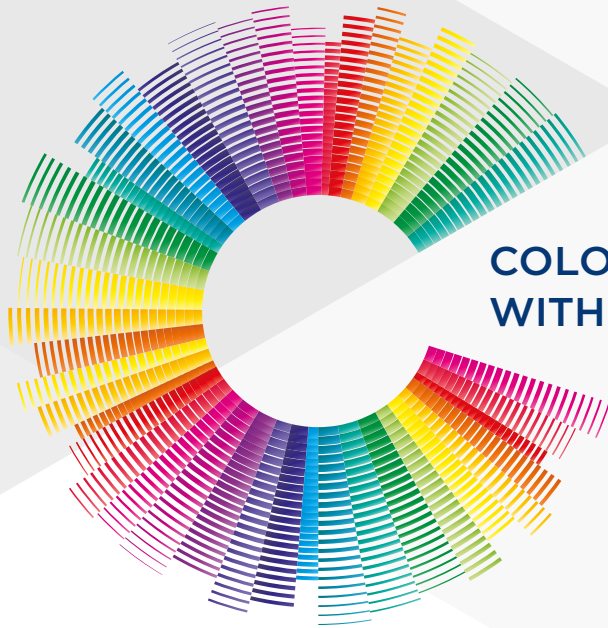
Mendizorooza Paddles, Spain | Danpal® Roofing System  
Architect: Ramon Ruiz Cuevas

SYSTEM	SPAN IN (MM) FOR 100 KG/M <sup>2</sup> WIND LOAD 3 SUPPORTS											
Panel width (mm)	600				900				1040			
Panel thickness (mm)	8	10	12	16	3Dlite	22	50	12	16	22	35	16
PC connector with fastener	700	800	900	1,000	900	1,100	1,500	800	900	1,000	1,500	850
PC connector with Aluminum Spacer		1,850	2,000	2,250	2,000	2,300	3,500	1,300	1,500	1,600		1,200
Reverse installation	2,000						1,600			2,700	1,400	
Aluminum connectors UHD/UEF/U54	2,100						1,600			2,700	1,400	
Aluminum connectors U5/U70	3,500						2,900			3,200	2,750	
Freespan 50		2,800	3,000	3,000				2,400	2,400			2,000
Freespan 100				5,000					4,000			3,750
Freespan 150				6,000					5,000			4,650

**Aluminum material:** 6063 T5. **Safety Factor:** 1.5. **Maximum deflection:** not more than 50mm or <2% of the distance between purlins. Table shows the main span possibilities, other values are available upon request

## SPECIFICATION

	MC/HC 8mm	MC/HC 10mm	MC/HC 12mm	MC 16mm	3DLITE	MC 22mm	MC 35mm	50mm
U Value (w/m <sup>2</sup> c°) EN ISO 10211, 100772-2 and 6946	3.0	2.6	2.4	1.9	1.76	1.5	1.2	0.85
Min Cold Bending Radius (mm)	2,500	2,700	2,800	3,100	5,000	3,500	4,400	5,400
Panel Width (e.g. 600mm) Installed Module Width (e.g. 602mm)	600	600	600/900	600/900 /1040	600	600/900	900	600
Minimum slope from the horizontal	5°	5°	5°	5°	5°	5°	5°	5°
Sound Absorption Rw dBA	18 dB	20 dB	21 dB	22 dB	N/A	23 dB	23 dB	N/A



## COLOUR YOUR ATMOSPHERE WITH THE DANPAL® PALETTE

### ABOUT THE COMPANY

#### Innovative light architecture systems for building envelopes

Danpal® are creators of exceptional light-transmitting architectural systems for building envelopes, providing optimal solar and thermal comfort.

For 50 years, our innovative systems have helped architects to transform light (both natural and artificial) into a powerful and versatile tool, for architectural creations that are internally and externally radiant.

An industry visionary, Danpal® are originators of the Danpalon® translucent panel standing seam system - a light architecture solution used around the world in commercial, education, transport, health, sports and high-tech projects.

Today, the company offers complete systems - providing total solutions for the building envelope. Danpal® designs, manufactures and distributes an unmatched range of daylighting systems for all types of building requirements - from Façades, cladding, roofs, skylight, shading, to interior and outdoor applications.

Danpal® systems are built around innovative technologies, deep architectural know-how and the ever evolving needs of our clients. Operating in five continents, Danpal® inspires architectural creativity with its rainbow of light architecture solutions.

#### Danpal® Roofing System are an integral part of Danpal's range of systems - giving you a complete solution



FAÇADE



CLADDING



SKYLIGHT



OUTDOOR



SHADING



INTERIOR