DANPAL®
FAÇADE SYSTEMS

Single Glazed
Translucent Façades



FAÇADE

Danpal® Light Architecture

SINGLE GLAZED TRANSLUCENT FAÇADES

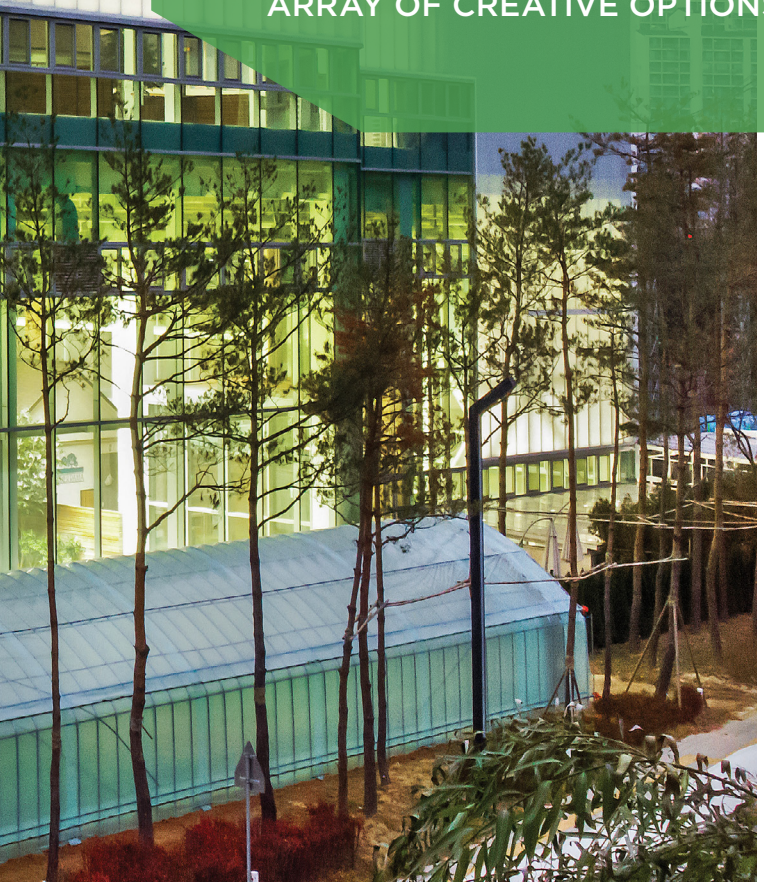






Vue Cinema, Gateshead, France | Danpal® Single Façade System 22mm | Architect: 3D Reid

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



Danpal® Single Glazed Façades are translucent dry glazed systems available in a variety of configurations for various types of structures. Danpalon® Façade is lightweight and offers excellent weather protection with high impact resistance.

Suwon High Golf, Korea | Danpal® Single Façade System 16mm
Architect: Jeongrim

THE OPTIMAL BALANCE OF SOLAR AND THERMAL DYNAMICS



Fashion NEPA | Danpal® Single Façade System 16mm
Architect: Mark Fran / de plus



Winter Olympics 2010, Vancouver, Canada | Danpal® Single Façade System 16mm | Architect: ING

When it comes to the perfect Façade, finding the equilibrium is key. Excess light results in undesired glare and uncomfortable amounts of heat. Using materials with superior flexibility, transparency, and tonal qualities compared to glass, Danpal® delivers the perfect balance of light and thermal dynamics for any Façade. With superior insulating properties, Danpal's Façade systems ensure good thermal comfort. Their unique translucency also ensures optimum visual comfort with even light diffusion.

Giving architects the ability to play with light

Building design professionals can control the amount of light, hide various building elements or create intriguing visual contrasts by integrating with conventional glazing. Our extensive range of colours, textures, finishes and lighting effects offer a rich palette of options for creating inspired Façades - illuminating by day and transforming into light boxes at night.

Translucent glazing - superior light diffusion

The glazing panel's unique structure transmits an even diffusion of natural light. Specifically designed for architectural daylight applications, the tight spacing between the ribs produces an aesthetically appealing look.

Unparalleled design flexibility

Concealed joints create a flush external that can warp and twist if necessary.

High security

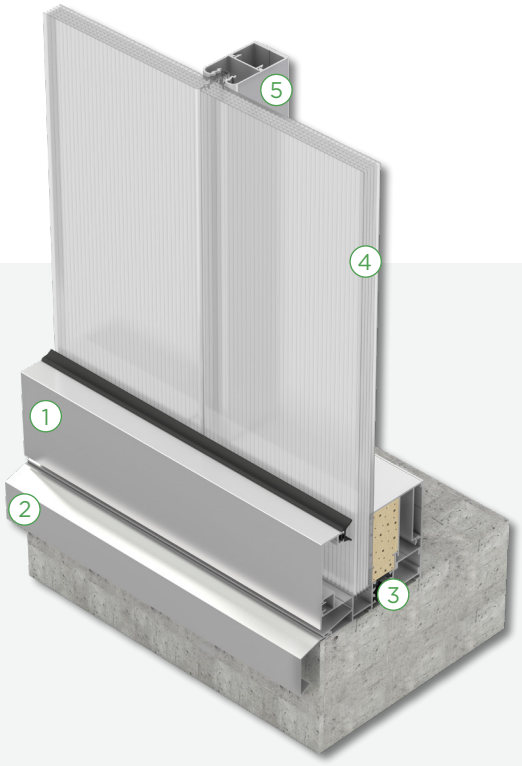
The double "click" locking seam enables higher load resistance.

High thermal insulation

Danpal® façade's unique cell structure generates superior thermal insulation. The subsequent improvements in 'U' and 'R' values offer significant benefits to the overall energy efficiency of a building.

UNIQUE BENEFITS:

- High impact resistance
- UV protection
- Evenly diffused light
- Lightweight
- Freedom of design
- Superior air and water tightness
- Highly secure
- Certified system
- Easy installation
- Made with Microcell technology



1. System frame adapted to different panels
2. Perimeter details designed to deal with building and regulation requirements
3. Thermally broken product frame with special foam
4. Range of Danpalon® panels
5. Various connectors integrated into the system





Burnie Makers Workshop, Burnie, Australia
Danpal® Single System 16mm | Architect: Terroir

High impact resistance & strength

The panel's special micro cell structure offers the highest resistance to impact and hail damage.

Superior air and water tightness

The snap-lock connection system ensures air and water cannot penetrate into the building

Extended UV protection

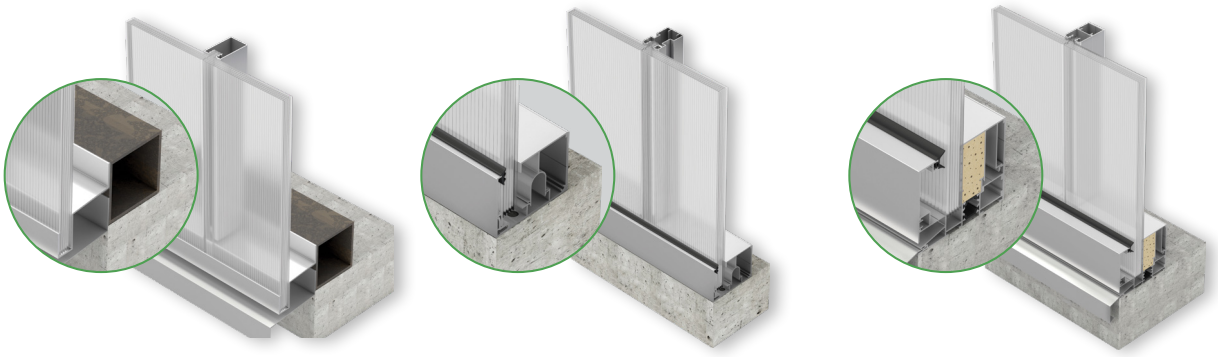
The Danpal® Façade system offers top quality co-extended UV protection, guaranteeing a longer system life.

Easy construction

Quick, simple and cost effective installation.

Certified system

Compliant with ISO9001 and CSTB requirements.



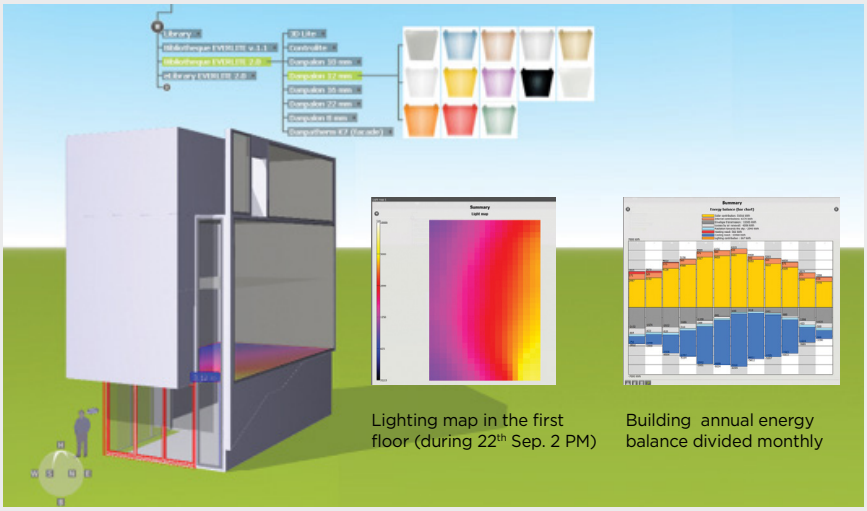
TRADITIONAL TP SYSTEM	ADVANCED NM SYSTEM	THERMAL ADVANCED AIRPT SYSTEM
Economical Façade system without subframe for basic performance	**Advanced Façade system with integrated frame**	**Advanced Façade system with integrated subsill and frame and thermal break for Excellent insulation performance**
• Flexibly fits installation area • Lightweight • Simple, economical solution	Integrated frame for complete protection against water and air penetration with reduced thermal conductivity. • Suits a range of panels. • Strong system enables long modules • Provides a clean, elegant finish	
• Complete system performance test supported by CSTB leading building institute • Made of high quality materials		

NEXT GENERATION INTERNAL SOLAR AND THERMAL SIMULATION

Danpal® uses state-of-the-art software to predict and plan the amount of daylight in the façade. Taking into account the systems' physical characteristics (light transmission, solar factor, U value, etc.), it creates a simulation of daylight and quantifies the amount of daylight transmitted through the building envelope. It can simulate natural light levels and energy consumption across the entire structure by combining local climatic data with the physical characteristics of the systems. Architects can experiment with various product specification options and material areas to create the perfect Façade according to the project's lighting and energy requirements, ensuring optimum energy efficiency and visual comfort without glare.

- Dynamic internal daylight map simulation
- Dynamic internal energy consumption simulation





Lighting map in the first floor (during 22th Sep. 2 PM)

Building annual energy balance divided monthly

Car dealership, Israel | Controlite® Skylight

TECHNICAL FEATURES

	600, 900, 1040	STANDARD	
Panel length	Up to 11,98 m		
Reaction to fire	B-s1,d0	Norm NF EN 13501-1 : 2002 P.V. LNE M071009 – DE/5 ; DE/9	
U value	As per panel characteristics	CSTB : DER/HTO 2010-022-FL/LS, DER/HTO 2011-091-RB/LS et DER/HTO 2011-288-RB/LS.	
Acoustic	As per panel characteristics	CSTB : AC08-26013441/1 et AC08-2613441/2.	
Light transmission	As per panel characteristics	norm ASHRAE- 74-1988.	
Warranty	10 years	According to Danpal Warranty policy	
Impact and shock resistance	Pass	PV CSTB GM 89/10 , PV CSTB GM 94/2	
Suitable for panel*	**TP system**	**NM system**	**AirPT system**
	16, 22 mm	10, 12, 16, 22 mm	16, 22, 35 mm
	Kinetic, 3DLITE	Kinetic, 3DLITE	Kinetic, 3DLITE
Water/Air permeability 50 Pa $m^3/(h.m)$		Pressure - 0.20	Pression- 0.30
		Depression - 0.13	Depression- 0.10
Technical agreement	CSTB Technical Assessment		
Special finishes	Pearl, low E, softlite, HP		

* Panels with profiles less than 16mm are not recommended for use within these systems

THE DANPALON® SUPPORT SPACING GUIDE - MIDDLE SPAN

2 SUPPORT - KG/SQM FOR ALUMINIUM U HD CONNECTOR																		
Max. span	600								900								1040	
	10 MM		12 MM		16 MM		22 MM		12 MM		16 MM		22 MM		35 MM		16 MM	
	P	V	P	V	P	V	P	V	P	V	P	V	P	V	P	V	P	V
1200	124	124	124	124	250	250	250	250	105	160	140	160	95	160	on request		140	105
1600	80	110	80	110	235	235	235	235	57	160	120	160	95	160	on request		100	60
2000	80	110	80	110	150	150	150	150	57	106	67	106	95	130	on request		N/A	N/A

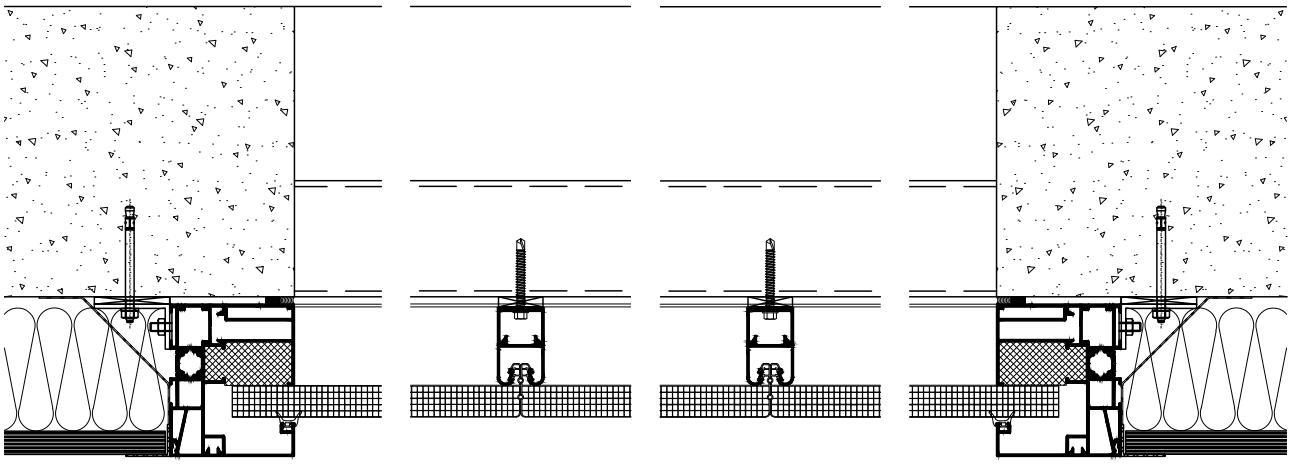
P=Pressure, V= Vacuum

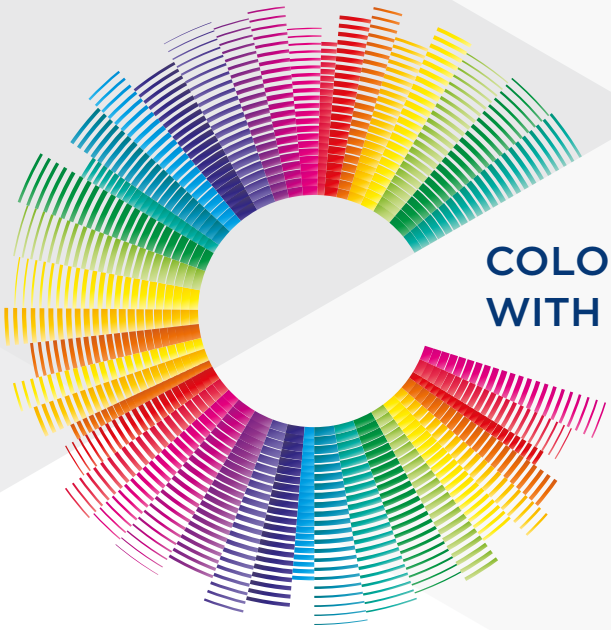
*** Safety factor from system collapse = 3**

** Maximum deflection <2% of the distance between purlins and not more than 50mm.

*** Figures in table are for middle span. When installing end span reduce span by 20%.

STANDARD SECTIONAL DRAWINGS OF AIRPT SYSTEM





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, skylights, 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® Single Glazed Façade is an integral part of Danpal's range of systems - giving you a complete solution

FAÇADE CLADDING SKYLIGHT OUTDOOR SHADING INTERIOR

88-999414/2

www.danpal.com

Danpal® Light Architecture