



DANPAL®
LIGHT ARCHITECTURE
SOLUTIONS FOR THE
BUILDING ENVELOPE

www.danpal.com



NORTH AMERICA



DANPAL® LIGHT ARCHITECTURE SOLUTIONS FOR THE BUILDING ENVELOPE - OFFERING UNIQUE VISUAL EFFECTS AND OPTIMAL THERMAL COMFORT

Danpal® creates exceptional light architectural systems for building envelopes. Perfect for facades, cladding, roofing, skylights and shading applications, Danpal® makes it easy to design natural daylight environments. A truly global company - with over 50 years' experience providing unique solutions to architects - Danpal® has supported a multitude of renowned architectural projects. We offer customers a complete system of innovative, ready to install, premium quality and customized solutions.

CONTENTS

INTRODUCTION	4
FACADE SOLUTIONS	15
Controlite System for Facades Intelligent Daylighting System	16
Danpatherm System K7/12 Unitized Large-Spanning High Insulation System for Façades	18
Danpal® Facade Systems Single Glazed Translucent Facade	20
CLADDING SOLUTIONS	23
Danpal® VRS System Ventilated Rainscreen System	24
SKYLIGHT SOLUTIONS	27
Controlite System for Roofing Intelligent Daylight System	28
Danpal® Roofing Systems Modular Glazing Solution for Roofs	30
Danpal® Compact Systems Total Transparency with High Impact Resistance	32
Danpavault Barrel Vault Skylight System	34
Danpalon® Industrial Optimised Light for Industrial Structures	36
OUTDOOR SOLUTIONS	39
Danpal® Roofing Systems Modular Glazing Solution for Open Roofing	40
Danpal® Compact Systems Transparency with High Impact Resistance	42
SHADING SOLUTIONS	45
Danpal® Sunshade System Operable Translucent Shading System	46
INTERIOR SOLUTIONS	49
Danpal® Interior and Decoration System Innovative Solutions for Interiors with a Unique Range of Distinctive Visual Appearances	50



Zénith, Limoges, France
Architect: Bernard Tschumi Architecte



THE ARCHITECTURE OF LIGHT



Natural light plays a central role in architecture. Architects use natural light as a building block for their creation. They sculpt buildings to affect the play of light off different surfaces. Light defines the customized space, contributes to its perception, adds value to its function, and brings an emotional component to its users.

Danpal® offers a brilliant range of daylight harnessing architectural solutions designed for building envelopes. Our customized and easy-to-install range of systems literally transform light - whether natural or artificial - into a powerful and versatile tool, for architectural creations that radiate inside and out.

For over 50 years, Danpal® has been a world leader in utilizing the qualities of the sun for the benefit of architecture.

We Call It Light Architecture.

CREATE THE OPTIMAL BALANCE OF SOLAR AND THERMAL PERFORMANCE



NATURAL LIGHT & WELLBEING

Natural lighting in buildings has proven to be beneficial on many levels. Sunlight makes us happier and more relaxed and enables us to feel the time change during the day. It saves energy and enables us to view objects with greater clarity. It's no surprise architects are moving towards greater use of natural lighting that penetrates structures throughout the day. As people spend almost 90% of their time indoors, it is vital to create a comfortable solar and thermal environment for overall wellbeing.

PROVIDING GREATER COMFORT THROUGH VISUAL AND THERMAL EQUILIBRIUM

When it comes to architectural lighting, finding the equilibrium is key. Excess light results in undesired glare and intolerable ambient heat. Danpal® uses materials with superior flexibility, transparency, tonal qualities and insulating properties. Danpal® systems assure balanced thermal comfort, while their translucency ensures optimal visual comfort and even light diffusion.

Keystone House, Montreuil, France
Architect: M. Paillard

Elsa Enterprise Academy, Liverpool, UK
Architect: BDP Manchester



TRANSFORMING ANY STRUCTURE INTO A WORK OF ART

Architects are constantly seeking innovative solutions and raw materials to create the extraordinary. Since our establishment, Danpal's state-of-the-art systems have given architects the creative freedom to experiment with daylight in ever more experimental and inventive ways. Our extensive range of colors textures and reflections, offers architects a rich palette for creating inspired structures that illuminate the user's experience - indoors and out, at any time of day.

Expo Shanghai 2010, China
Architect: Jacques Ferrier

ALWAYS
LIGHT YEARS
AHEAD



THE FIRST COMPANY TO DEVELOP THE TRANSLUCENT PANEL STANDING SEAM SYSTEM

A visionary in architectural technologies, Danpal® was the first company to develop the Danpalon® translucent panel standing seam system. We create unique daylight solutions for all types of building envelopes. For over five decades, Danpal's® systems have been used around the world in architectural projects spanning commercial, education, transport, health, sports and high-tech industries.

Continuous innovation is one of our founding values. As market leaders, we take responsibility both for maintaining the highest levels of performance and developing the next generation of light architecture systems. Providing superior insulation, light transmission, energy efficiency and economical installation, our innovation is always in line with architects' needs.

Left: NAPA Fashion House, Korea | Architect: Mark Fran/de plus
Top: Studio Offices, Korea | Architect: Mark Fran/de plus



IN HARMONY WITH THE ENVIRONMENT

- **Solutions which limit energy consumption:** Our systems can adapt to variable climatic conditions for optimal thermal performance and sensible management of available light.
- **Adapted to the HQE approach,** which has defined building certification. HQE (High Environmental Quality) targets both the interior of the building, i.e. the health and comfort of users, as well as integration into the environment, saving resources and reducing waste.
- **Partnerships with the ADEME** (Agency for Economic Development and Energy Control) and the CNRS (National Centre for Scientific Research) using precise measurements created in test cells to validate the thermal performance of the Danpatherm system.



- **Manufactured according to ISO 9001 and ISO 14001.** Glazing is ISO certified for the highest quality and transparency in manufacturing
- **Simplified maintenance** through high pressure cleaning with fresh water, with minimal soap or detergent required.
- **Recycling of off-cuts and packaging:** Danpal® panels and waste are 100% recyclable. 100% of our production off-cuts are regranulated back into each extrusion.
- **Low on-site fabrication and handling:** In 95% of cases we deliver systems that are manufactured to size (i.e. minimizing waste by eliminating fabrication on site).
- **Non pollutant:** The Danpalon® system is certified as a non-pollutant and is suitable for use in sensitive fields such as the Agri-food sector.

Sports Complex, Epernon, France
Architect: Ligne 7 Architecture



DANPAL'S SMART SIMULATOR SERVICE

PREDICT THERMAL AND SOLAR PROPERTIES OF ANY STRUCTURE

Well-designed buildings offer as much natural daylight as possible while still maintaining a comfortable internal environment. Danpal® provides the right tools for planning the most effective light openings – by integrating appropriate products, which exploit the optimal level of energy resources – anywhere in the world, any time of day.

By using state-of-the-art software, Danpal® provides lighting and solar energy simulations. Danpal® is unique in offering simulation solutions – reflecting its 50 year heritage as a specialist in daylight architectural innovation.

OPTIMAL PLANNING OF LIGHT ARCHITECTURE AND ENERGY USE

Danpal® products are built into the simulation software. Architects can monitor internal heat and light levels during preliminary design by testing the diffusing and insulating capacity of various Danpal® solutions. This ensures optimal energy efficiency and visual comfort.

TOTEXTH FireFit Club, Liverpool, UK
Architect: Cass Associates

CHOOSE THE PERFECT SYSTEM FOR YOUR ENERGY AND LIGHTING NEEDS

Danpal® simulations bring solar and energy efficiency to new levels and create flexibility in design. The simulation software enables architects to choose the perfect system design for their energy and lighting needs by “playing” with different product specification options.

Taking into account the system's physical characteristics (light transmission, solar heat gain, U value, etc.), the software creates a simulation of daylight and energy consumption, then provides a map showing the natural illuminance levels throughout the building.



FACADE SOLUTIONS

Facades which illuminate by day
and transform into light boxes at night,
with a clean, contemporary look.

- CONTROLITE® FOR FACADES
- DANPATHERM
- DANPAL® FACADE SYSTEMS

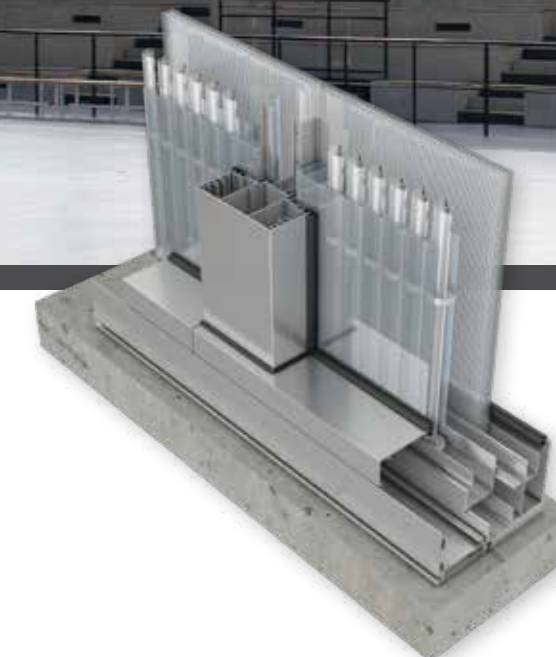


CONTROLITE® FOR FACADES

INTELLIGENT DAYLIGHTING SYSTEM

Light Optimisation for Facades

Transform your facade into a dynamic wall of light. Controlite® features rotating louvers that adjust their position throughout the day to transmit the optimal amount of daylight. This intelligent system balances light levels and solar heat gain to transmit uniformly diffused light, creating comfortable indoor environments in even the harshest climates. Controlite® offers a dynamic, cost-effective solution which significantly lowers energy consumption and integrates sustainable design.



SYSTEM BENEFITS

- Provides optimal comfort in changing daylight conditions
- Offers glazing surfaces in larger areas
- Withstands weather and temperature extremes
- Sustainable design, saves energy, reduces heating/cooling costs



DANPATHERM

UNITIZED LARGE-SPANNING HIGH INSULATION DOUBLE GLAZED SYSTEM FOR FAÇADES

Light & Insulation

Danpatherm is a unitized, factory assembled building system designed to achieve high thermal performance and light transmission with superb spanning capabilities. It is quick and easy to install, reducing labor costs and construction time. Danpatherm can be integrated with a complete LED lighting system, creating a radiant wall during the day and a light box at night.



Camille Fournet Manufacturing, Tergnier, France
Architect: Atelier Boris Cindric

SYSTEM BENEFITS

- Exceptional thermal insulation
- Factory pre-assembled cassette
- Quick and easy installation
- Clean look - no visible aluminium
- Variable levels of light transmission
- Excellent wind load resistance

Saint Thomas Church, Vaulx-en-Velin, France
Architect: [Siz'-ix]

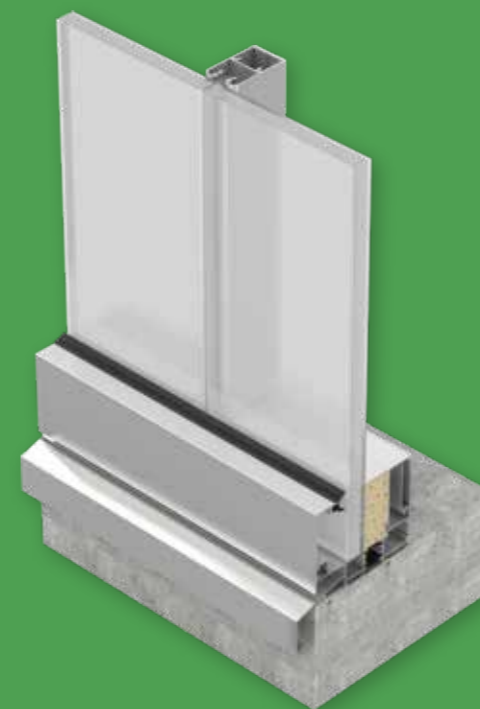


DANPAL® FACADE SYSTEM

SINGLE GLAZED TRANSLUCENT FACADE

The Freedom to Create Inspired Facades

Danpal® Façade is a translucent wall system that combines Danpalon® panels with aluminum framing and multiple glazing finishes. Danpal® Façade, which is designed to be put on various types of buildings, has several advantages. It is lightweight and has a high resilience to impact and weather. It provides UV protection, exceptional air and water performance, high security, and unmatched light diffusion. Our vast palette of colors, textures, finishes, reflections, and light transmission provide architects with a rich palette to build innovative facades - illuminating the user's experience with sunshine during the day, then delivering spectacular glowing translucent walls in the night.



SYSTEM BENEFITS

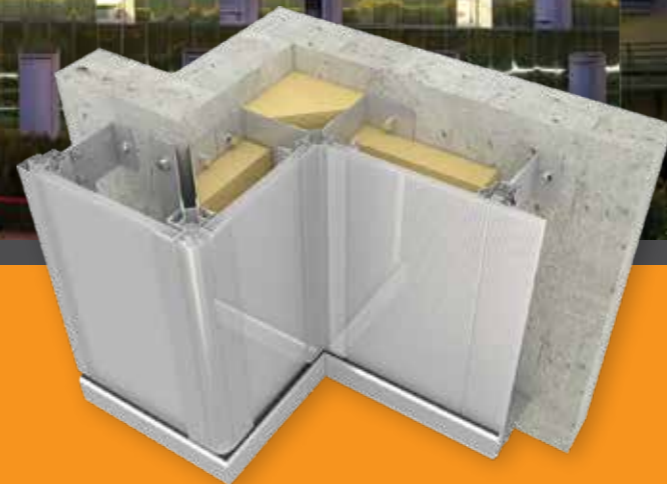
- High impact resistance
- Evenly diffused light
- Lightweight
- Superior air and water performance
- Easy installation
- High thermal insulation value
- Cost effective



CLADDING SOLUTIONS

Sustainable Cladding Solutions for
New and Existing Buildings.

- DANPAL® VRS SYSTEM



DANPAL® VRS

VENTILATED RAINSCREEN SYSTEM

An Appealing Exterior with Insulating Efficiency

The purpose of the VRS is to provide a ventilated rainscreen utilizing the versatility of the Danpalon glazing panels. Our unique system prevents thermal bridging, improves energy efficiency and thermal performance of the building.

SYSTEM BENEFITS

- Lightweight
- Quick, easy and cost effective installation
- Unparalleled design & choice of colors
- Significant panel lengths (up to 39 feet standard lengths, longer upon request)
- Environmentally friendly
- No waste



International Student Residence, Reims, France
Architect: Jean-Michel Jacquet



SKYLIGHT SOLUTIONS

The flexibility to explore new possibilities for designing buildings filled with light – with control of light intensity and energy consumption.

- CONTROLITE® FOR ROOFING
- DANPAL® ROOFING SYSTEM
- DANPAL® COMPACT SYSTEM
- DANPAVAULT
- DANPALON® INDUSTRIAL

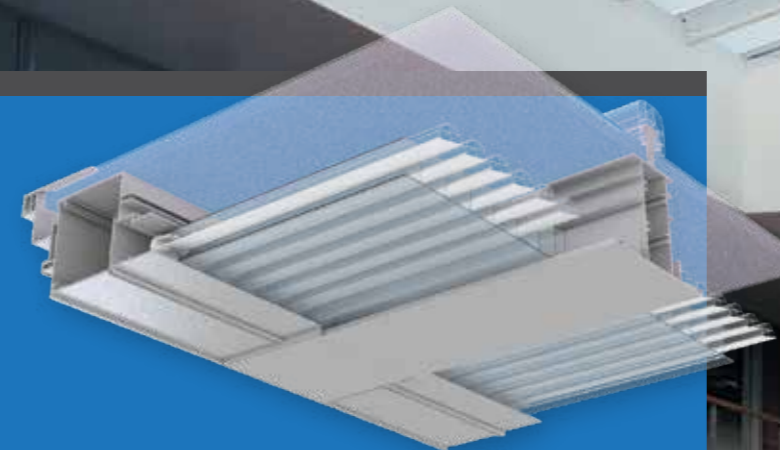


CONTROLITE® FOR ROOFING

INTELLIGENT DAYLIGHT SYSTEM

Light Optimization for Roofing

Controlite® features rotating louvers that adjust their position throughout the day to transmit the optimal amount of daylight. This intelligent system balances light levels and solar heat gain to transmit uniformly diffused light, creating comfortable indoor environments in even the harshest climates. Controlite® offers a dynamic, cost-effective solution which significantly lowers energy consumption and integrates sustainable design.



SYSTEM BENEFITS

- Transmits uniform, diffused light
- Creates a comfortable indoor environment
- Reduce solar heat gain up to 93%
- Improved thermal performance
- Free thermal expansion
- Easy maintenance



Synthesis Cap, Saint-Cyr-sur-Loire, France
Architect: Studio Architecture



DANPAL® ROOFING SYSTEM

MODULAR GLAZING SOLUTION FOR ROOFS

Get Natural Light from Above

Danpal® Roofing is a dry glazed translucent system available in a variety of designs, suitable for installation above or below various types of structures (according to engineering and design requirements). The system contains a variety of snap-on interlocking dry-glazed connectors made of polycarbonate or aluminium.

Danpal® Roofing systems are suitable for a wide range of weather conditions and offer high impact resistance. With a large variety of shapes, colors, and finishes the Danpal roofing systems provide an unparalleled range of creative options.

SYSTEM BENEFITS

- Easy and fast installation
- Free floating system allowing full thermal expansion
- High resistance to wind and snow loads
- Flexible system suitable for many types of roof designs
- Lightweight



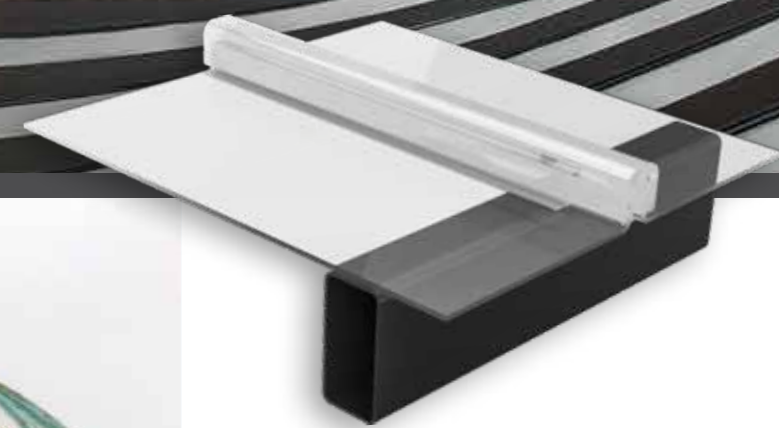


DANPAL® COMPACT SYSTEM

TOTAL TRANSPARENCY WITH HIGH IMPACT RESISTANCE

Transparency Without Limits

Enjoy the appearance of glass together with all the advantages of polycarbonate. Danpalon® Compact is a 4mm thick solid panel that provides a 'glass-like' appearance, together with strength, insulating qualities, flexibility, curving ability, low weight and UV protection. The Danpalon® panels' standing-seam connection system allows architects complete freedom to design spectacular glazed areas of unlimited size, angle or color. Up to 39 feet long panels are supplied. Available as straight panels in a range of colors, they can be easily cold formed on site - adapting to all creative transparency ideas.



SYSTEM BENEFITS

- Pure transparency
- Lightweight
- Waterproof
- Easy installation
- Impact resistance
- Long panels, curvable on site



DANPAVAULT

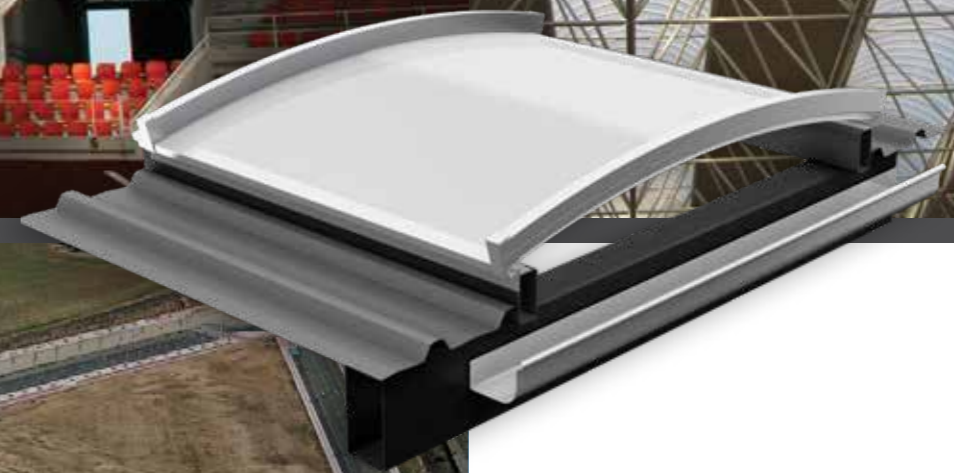
BARREL VAULT SKYLIGHT SYSTEM

The Sky is No Limit

The Danpavault Barrel Vault Skylight System combines all the advantages of Danpalon® together with a skylight of unlimited length, offering easy integration with various roof types including profiled metal and concrete.

Danpavault's unique structure transmits an even diffusion of natural light, delivering superior durability, thermal insulation and extended UV protection.

The Danpavault system can be installed as a self-supporting skylight or over a metal structure covering a large range of radii and spans. It can be installed over small or large spans by adding aluminium framing options, such as spacers, bars or connectors.



SYSTEM BENEFITS

- Unlimited length
- Allows a greater amount of light compared to flat light openings per area of roof light opening
- Self-supporting skylight
- Easy to install and compatible with many roof types
- Excellent light diffusion
- 100% watertight
- High load capacity

Plaza de Toros de Illescas, Toledo, Spain
Architect: Diego Garteiz from DGM Arquitectos



DANPALON® INDUSTRIAL

OPTIMIZED LIGHT FOR INDUSTRIAL STRUCTURES

Superior Light and Energy Efficiency for Industrial Settings

Danpalon® Industrial provides natural light to industrial structures. The panel strips transmit natural light throughout the day to factories and industrial plants. The panels provide an easy connection to industrial light openings; whether to existing structures, as single panels, or as an entire unit.



SYSTEM BENEFITS

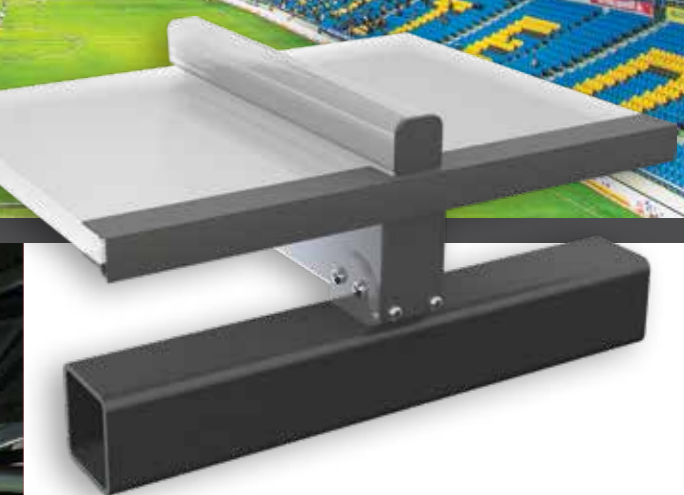
- 100% waterproof
- High impact resistance
- Lightweight
- Easily connects to existing panels
- Outstanding light transmission
- Excellent thermal insulation
- Quick, easy and cost effective installation
- Superior air and water performance



OUTDOOR SOLUTIONS

Protect from the elements with high impact resistance and an exciting range of creative possibilities.

- DANPAL® ROOFING SYSTEM
- DANPAL® COMPACT SYSTEM



DANPAL® ROOFING SYSTEM

MODULAR GLAZING SOLUTION FOR OPEN ROOFING

Enjoy Natural Light with the Benefits of Physical and UV Protection

Danpal® Roofing is a dry glazed translucent system available in a variety of designs suitable for installation above or below various types of structures (according to engineering and design requirements). The system contains a variety of snap-on interlocking dry-glazed connectors made of polycarbonate or aluminium.

Danpal® Roofing systems are suitable for a wide range of weather conditions and offer high impact resistance. With a large variety of shapes, colors, and finishes the Danpal roofing systems provide an unparalleled range of creative options.

Danpal® Roofing provides a variety of benefits for open roof structures: lightweight, comfortable light diffusion, UV protection and flexibility of installation onto rounded and amorphous structures. It is sealed from the outside, while providing visibility from the inside.

SYSTEM BENEFITS

- Easy and fast installation
- Free floating system allowing full thermal expansion
- Superior resistance to wind and snow loads
- Flexible system, suitable for many types of roofs

Soong-eui Arena Park Stadium, Korea
Architect: Rosseti Architects and Mooyoung



DANPAL® COMPACT SYSTEM

TRANSPARENCY WITH HIGH IMPACT RESISTANCE

Total Transparency. Total Strength. Total Curving Ability

Enjoy daylight together with the advantages of physical and UV protection. Benefit from the appearance of glass and all the advantages of polycarbonate. Danpalon® Compact is a 4mm thick solid panel that provides a 'glass-like' appearance, together with strength, insulating qualities, flexibility, curving ability, low weight and UV protection. The Danpalon® standing-seam connection system allows architects complete freedom to design spectacular glazed areas of unlimited size, angle or color. Up to 39 feet long panels are supplied. Available as straight panels in a range of colors, it can be easily cold formed on site - adapting easily to all creative transparency ideas.



SYSTEM BENEFITS

- Total transparency
- Lightweight
- Waterproof
- Easy installation
- Impact resistance
- Long panels
- Curvable on site



SHADING SOLUTIONS

Design with light and shade - with ultimate control of solar and thermal dynamics.

- DANPAL® LOUVER SYSTEM



DANPAL® LOUVER SYSTEM

OPERABLE TRANSLUCENT SHADING SYSTEM

The Creative Way to Control Light & Heat

Danpalon® louver is a translucent shading system that provides maximum control over light and heat, extended UV protection and high impact resistance. Users can adjust the louver to create their desired balance of light and shade. With Danpal®, shading becomes a creative tool to dynamically transform the exterior. Available in a variety of colors, finishes and effects, it gives an appealing, innovative exterior design to new or refurbished buildings.



SYSTEM BENEFITS

- Lightweight
- Easy fabrication on-site or off-site
- Quick, easy and cost effective installation
- Recyclable materials
- Extended UV protection
- Wide variety of colors and finishes



INTERIOR SOLUTIONS

Create intimacy and open space
with a semi-transparent look.

- DANPAL® INTERIOR AND DECORATION

DANPAL® INTERIOR AND DECORATION

INNOVATIVE SOLUTIONS FOR INTERIORS WITH A UNIQUE RANGE OF DISTINCTIVE VISUAL APPEARANCES



Create New Atmospheres

Danpal® Interior Solutions enable designers to explore new aesthetic dimensions, creating revolutionary spaces transformed by light. Danpal® brightens a multitude of interior spaces: walls, partitions and interior ceilings open up under the effect of the light setting to create a unique ambience. Danpalon's unique Multicell structure provides exceptional quality of light, a rich non-industrial visual appeal and superior durability.

With Danpal®, architects can create partitions that evoke both intimacy and openness, due to their semi-transparent look. Danpalon's interior ceilings make the ceiling an integral part of the design space. Our wide range of lighting options bring increased depth and illuminate the user's experience. Use your creativity to make light an attraction with Danpal® Interior.



SYSTEM BENEFITS

- Wide range of colors and textures
- Unlimited design flexibility
- Lightweight
- Easy to install
- Allows for both open and intimate spaces



FAÇADE



CLADDING



SKYLIGHT



OUTDOOR



SHADING



INTERIOR

IDEAL FOR CUSTOMIZED AND UNITIZED SOLUTIONS



TURNING YOUR VISION INTO REALITY

For any application - whether it's a transportation center, sports hall, school building or shopping mall - Danpal's systems provide unique advantages within customized solutions.

- Bold design to complement all architectural needs.
- Superior natural light properties.
- Excellent thermal insulation.
- Top loading performance.
- Easy and efficient installation.
- Top quality and long term product lifetime service.

OUR FULL SERVICE OFFERING

- Project engineers and the sales team in your region will accompany you and follow up your projects, from their inception to completion.
- Our design office will assist and guide you in the implementation of the most suitable solution for your specific needs.
- The order processing and preparation service offers customized orders, reinforced packaging, accurate labelling and impeccable delivery.
- Our support service will promptly respond and assist you in finding solutions for your on-site challenges.
- We offer a full material warranty and are committed to meeting our customers' deadlines.





88-999821/1



NORTH AMERICA

www.danpal.com

3959 Bur Wood Drive, Suite 400 Waukegan IL 60085 | 312-724-8166