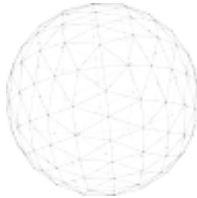


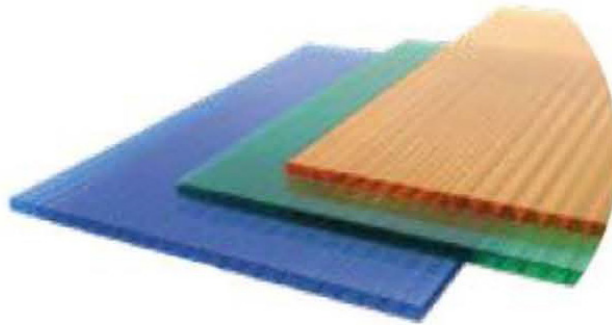


**TZUR**  **klar**  
DISTRIBUTOR OF ADVANCED POLYMERS  
**Authorized distributor for Klar**

## Product Lines



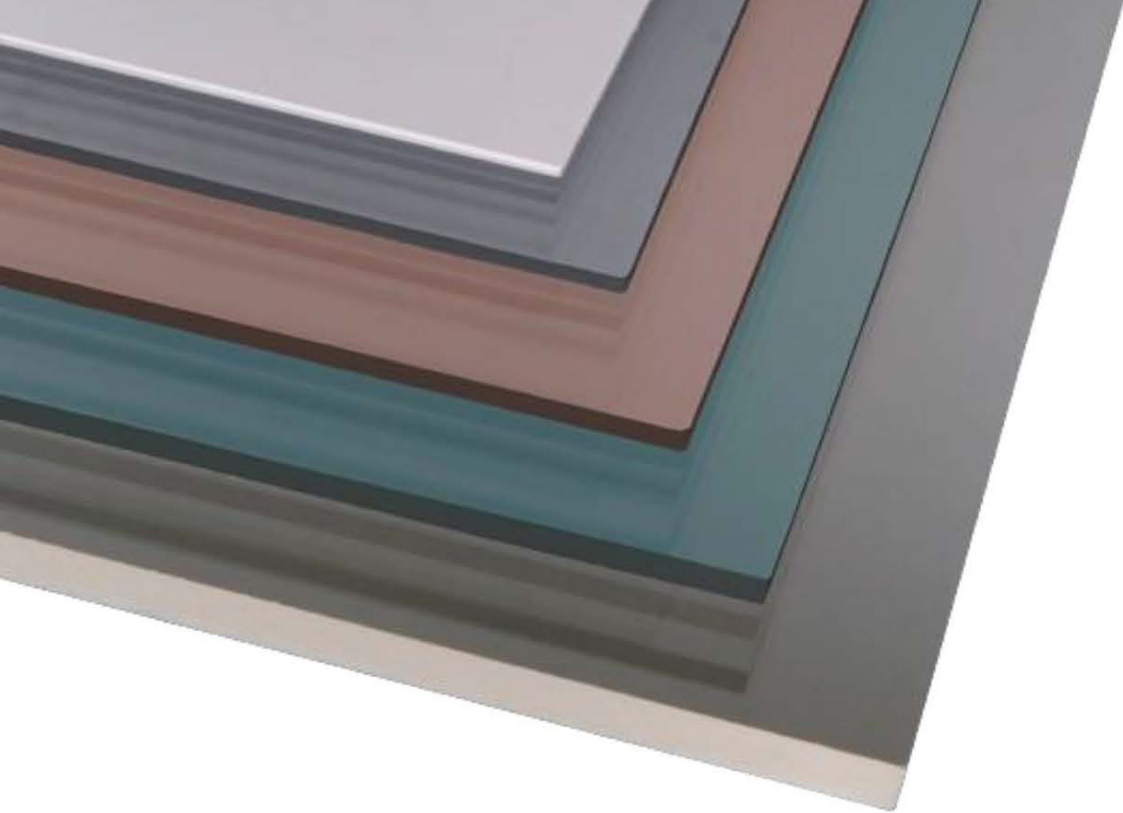
Solid Polycarbonate  
Sheet



Polycarbonate  
Twinwall sheets



Polycarbonate  
Profiles & Connectors

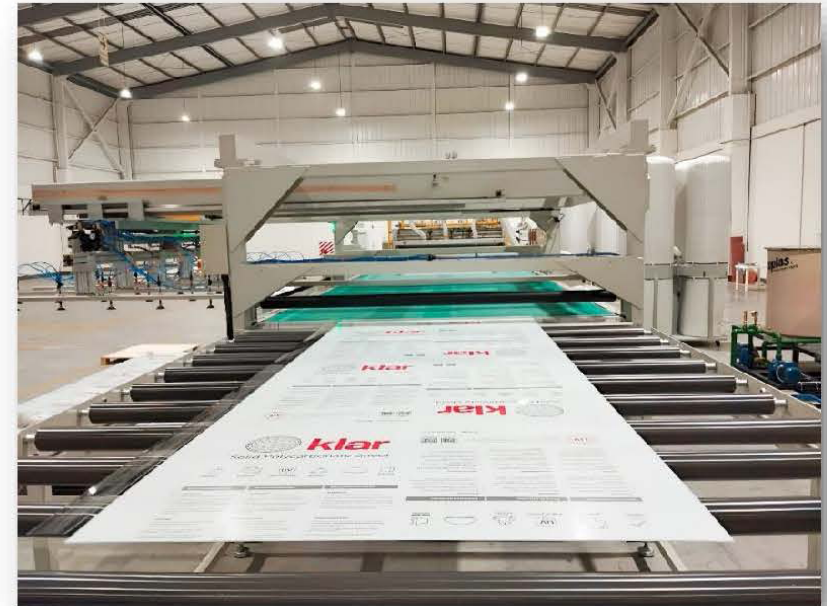


**Solid Polycarbonate Sheet**

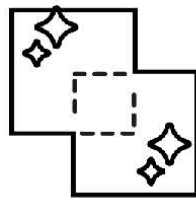


## Solid Polycarbonate Sheet

When we plan our projects, we want them to last. Klar® solid polycarbonate sheets combine 100% virgin resin, top quality additives and UV co-extruded coating to guarantee superior quality and durability. Our advanced technology allow us to obtain high impact resistance, excellent light transmission and glass-like clarity at less than half the weight of glass.



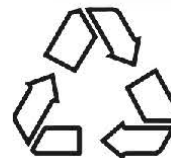
**Great impact  
resistance**



**Great clarity  
& brightness**



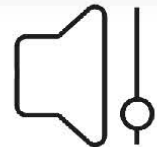
**Available with  
2-side UV protection\***



**100%  
Recyclable**



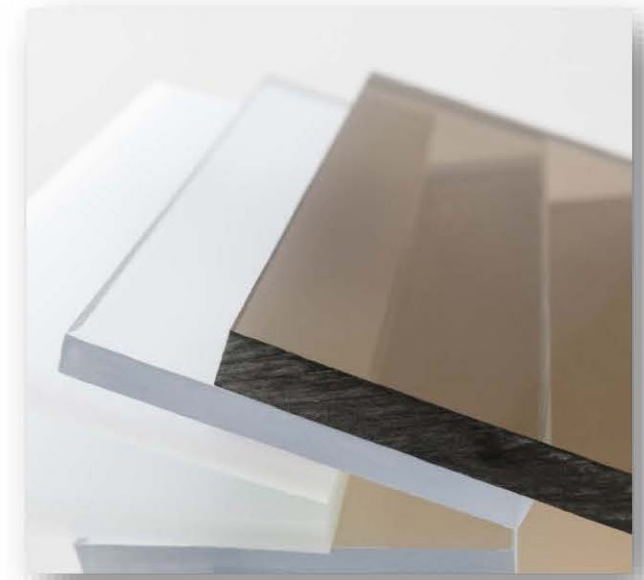
**Thermo-formable**



**Great Noise  
absorption**



## Colors



## Applications



### **SAFETY AND SECURITY**

CAN BE USED FOR:

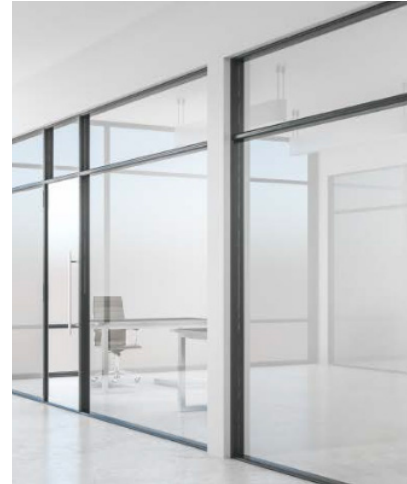
- Bus stops
- Protective visors
- Security materials
- Dividers
- Vending machines
- Train windows
- Terraces
- Helmet visors
- Riot shields



### **CONSTRUCTION AND ARCHITECTURE**

CAN BE USED FOR:

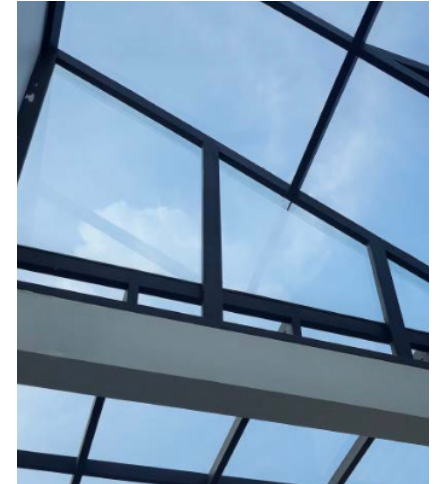
- Architectural roofs
- Covered walkways and domes
- Vertical protection
- Interior partitions
- Sports facilities
- Skylights
- Greenhouses
- Pergolas



### **POSTERS AND GRAPHIC MATERIAL**

CAN BE USED FOR:

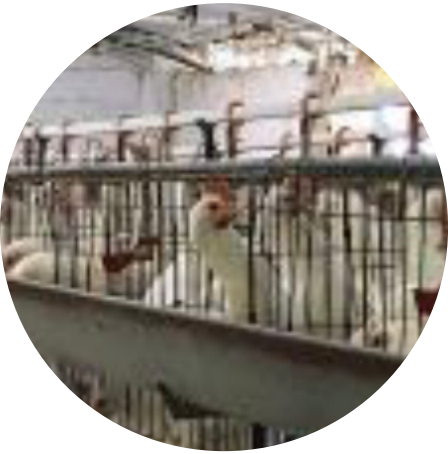
- Partitions
- Screens
- Signage
- Sign covers
- Lighting fixtures



### **MANUFACTURING** CAN BE USED FOR:

- Roof windows
- Visors
- Prison windows
- Molded features

## Farms



### Advantages:

- Protects animals from sunheat
- Easy to clean & maintain
- Beneficial to animal health and growth
- Proven to increase poultry and swine production





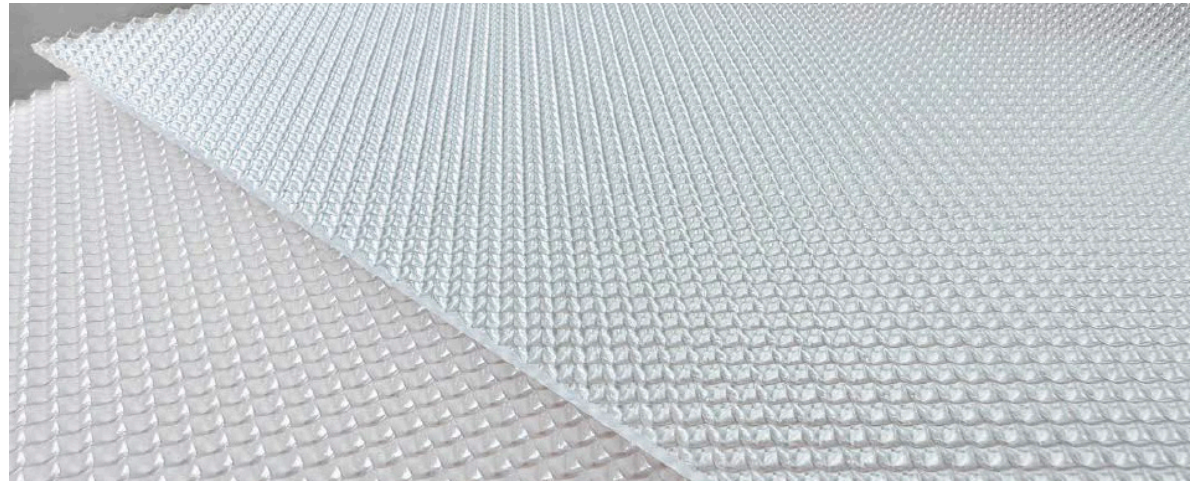
## Solid Prismatic Polycarbonate

### Main differences

- Specifically developed to disperse and spread light, ensuring optimum natural light transmission.
- Higher impact resistance than acrylic or glass, on both flat and curved surfaces.

### Advantages

- Energy savings: reduces energy costs, since during the day the environment is more open to natural light transmission.
- Manufacturing flexibility: can be produced in continuous lengths, optimizing your project.
- Easy installation: lightweight sheet, easy to handle and cut.
- Durability: excellent resistance to weathering and atmospheric conditions.





## DIMENSIONS Y PROPERTIES

Finish	Widths* (m)	Lengths* (m)	Thickness (mm)	UV	Colors*
Smooth	1.22	2.44 / 3.05 / 6.00	2.00 - 6.00	Without UV, 1UV, 2UV	Clear, opal, bronze, reflective gray, green, blue, yellow, light blue.
Smooth	2.05	2.44 / 3.05 / 6.00	2.00 - 12.00	Without UV, 1UV, 2UV	
Prismatic	1.22	2.44	3	1UV, 2UV	

*\*Other dimensions and colors are available subject to minimum order.*

PROPERTIES	METHOD	UNITS	SOLID POLYCARBONATE
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### GENERAL

Density	ISO 1183 - 1	G/cm <sup>3</sup>	1.20
Water absorption (24hrs)	ISO 62	%	0.16

MECHANICS			
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Tensile strength	ISO 527	MPa	67
Elongation of yield	ISO 527	%	6.4
Elongation at break	ISO 527	MPa	65
Tensile modulus	ISO 527	MPa	2400
Flexural modulus	ISO 178	KJ/m <sup>2</sup>	2400
Notched impact strength charpy	ISO 179 - 1	KJ/m <sup>2</sup>	No breakage
Notched impact strength izod	ASTM D256	KJ/m <sup>2</sup>	>45

OPTICS			
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Refractive index	ISO 489	-	1.109
Light transmission (2mm)	ASTM D1003	%	89
Haze	ASTM D1003	%	<1

THERMAL			
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VICAT Softening temperature (50N)	ISO 306	°F	257
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**TZUR**  
DISTRIBUTOR OF ADVANCED POLYMERS

**Twinwall Polycarbonate**

## Polycarbonate Twinwall Sheets

When we plan our projects, we want them to last. We know extreme climates can be very damaging, so our sheets were designed and manufactured with prime materials to overcome challenging environments. Klar combines 100% virgin resin, top quality colorants and UV co-extruded coating that acts against solar

radiation and prevents it from accelerated aging.

Our advanced technology provides great impact resistance, thermal insulation, excellent light transmission while keeping its flexibility for customized cutting and cold curving.

### PROPERTIES

- UV Protection
- 10-year warranty
- High impact (hall) and aging resistant (yellowness)
- Weather resistant
- Fire resistant
- Thermo-insulator
- Flexible for cold forming
- Excellent transparency for sunlight transmission
- Also available with Antifog / Anticondensation for Greenhouse & Agricultural applications



## APPLICATIONS AND USES

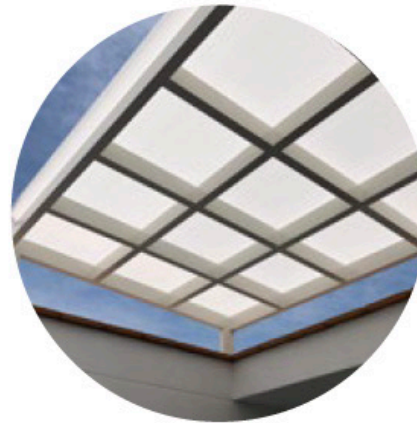
KLAR Polycarbonate twinwall sheets are used as coverings in greenhouses, edifications and warehouses, horizontal and vertical enclosures, coliseums, malls, industrial and commercial buildings, and residential applications that require natural illumination.



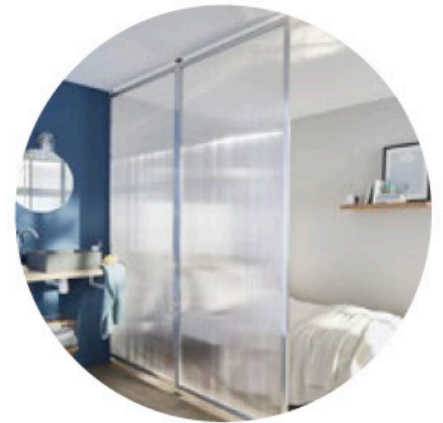
Greenhouses &  
Agricultural



Industrial &  
Commercial



Home improvement  
& DIY



Decorative &  
Interiors





BENEFITS



Excellent light transmission



Higher crop yields and plant quality results



Healthier & more productive growing environment



Fewer diseases and reduced drip damage

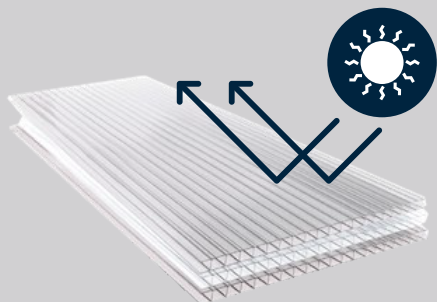




## KLAREFLECT®

### Reflective:

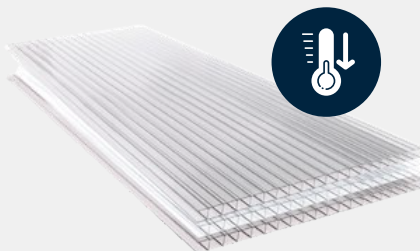
Our polycarbonate twinwall sheets with Klareflect® technology are suitable for warmer climates where excess of heat is quite a challenge. Klareflect® provides an effective solar heat control by reflecting sunlight away while keeping the internal temperature at low.



## KLAR SMART® IR

### Solar control IR:

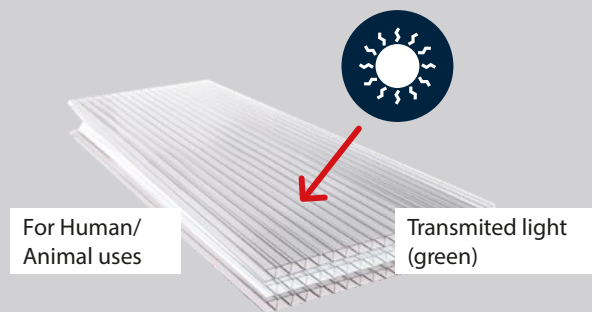
Klarsmart® IR technology is applied to our polycarbonate twinwall sheets to block undesirable near-infrared (IR) radiation permitting the highest levels of light transmission while avoiding interior heat buildup on surrounding objects and, thus, achieving energy efficiency.



## KLAR® VISUAL COMFORT

### Optical effects visual pleasing:

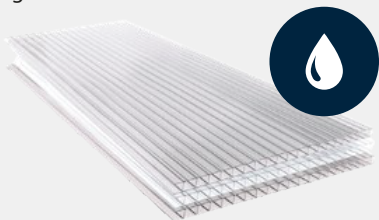
Klar® Visual Comfort technology provides a pleasing effect to the eyesight by reflecting selectively most of the near-IR solar radiation and transmitting a more visible, comfortable light.



## KLARIFOG®

### Antifog/anticondensation:

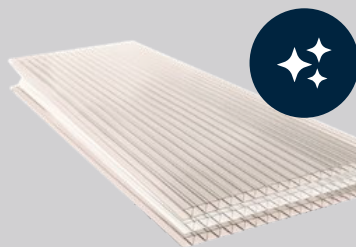
Our polycarbonate twinwall sheets with Klarifog® technology are designed for Greenhouse and other Agricultural applications where natural light transmission must be maximized for photosynthesis. Klarifog® effectively reduces droplets formation to a minimum while blocking harmful UV rays and excessive heat to obtain best crop efficiency and fewer biological diseases.



## STYLISH KLAR®

### Pearldshade:

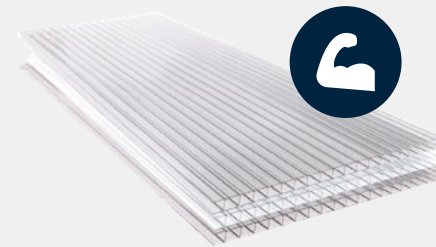
We recommend a selection of Stylish Klar® polycarbonate twinwall sheets for stylish, decorative applications where a sophisticated and refined look is desired. Our Stylish Klar® sheets provide elegance and style while keeping outstanding reflective qualities and light selectivity features.



## FIBER KLAR®

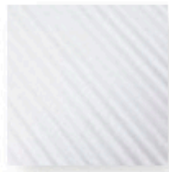
### Fiber glass:

Fiber Klar® sheets are ideal for interior designs and have the same optical and mechanical properties as our standard polycarbonate twinwall sheets, but with an improved abrasion resistance component obtained from fiber glass additives.



## Colors

### BASIC COLORS



Clear



Bronze



White

### SPECIAL COLORS



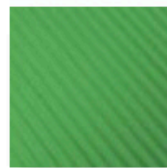
Yellow



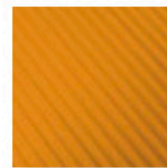
Turquoise



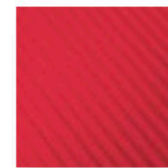
Blue



Green



Orange



Red



Smoke Gray

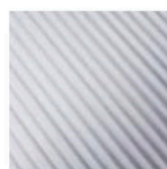


Light Blue

### REFLECTIVE COLORS



Reflective  
Pearl



Reflective  
Gray



Reflective  
Blue



Reflective  
Green

## Industrial & Commercial applications

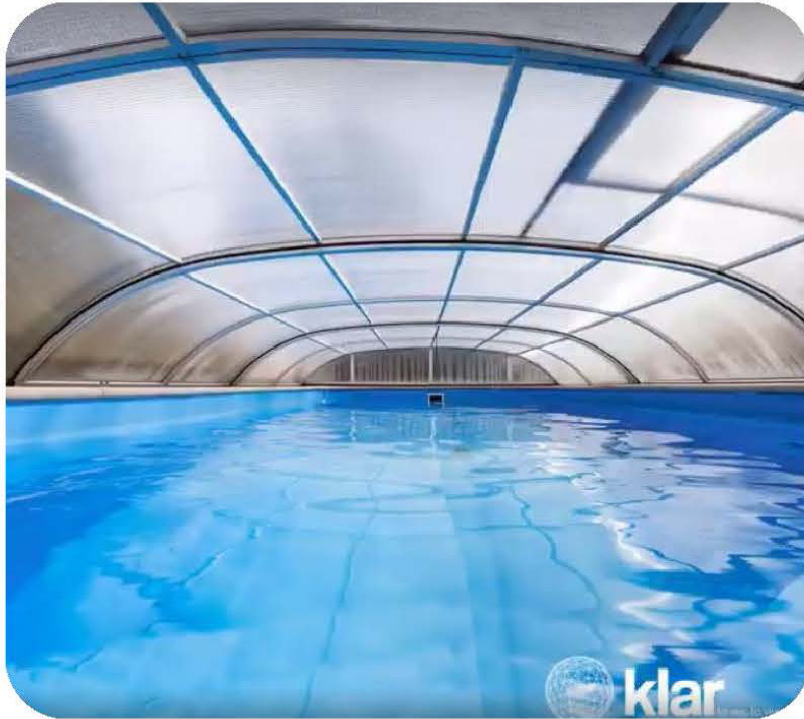
### Architecture and Construction





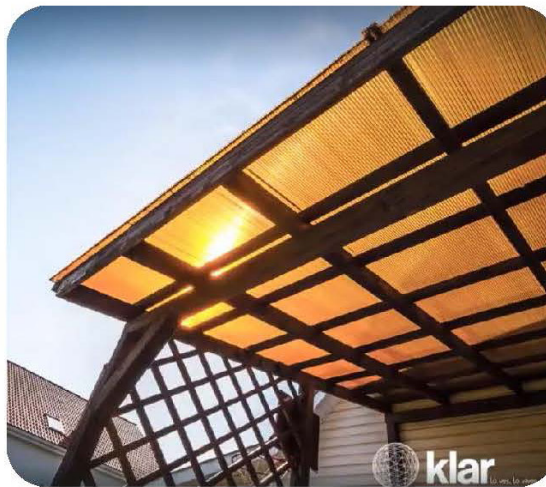
## Greenhouses & Indoor applications

### Greenhouses & pools



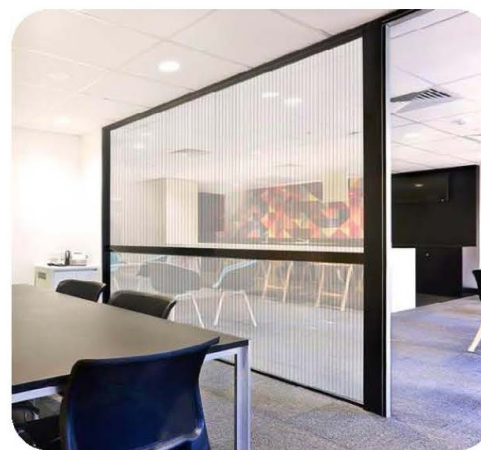
## Home Improvement applications

Sunroom, garage roofing, etc.

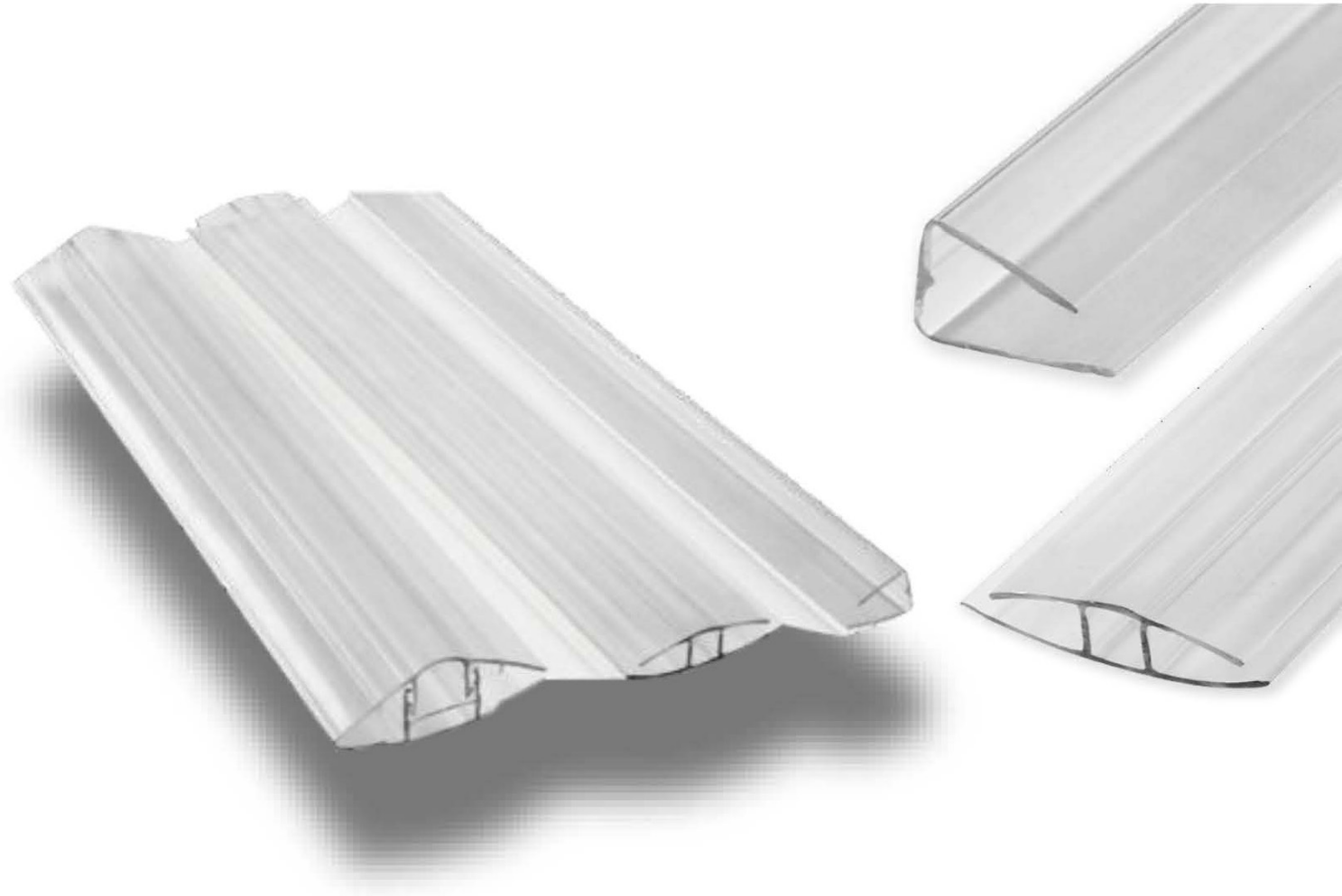


## Decorative applications

Offices, Lobbies, Vets, etc.







**Polycarbonate Profiles & Connectors**



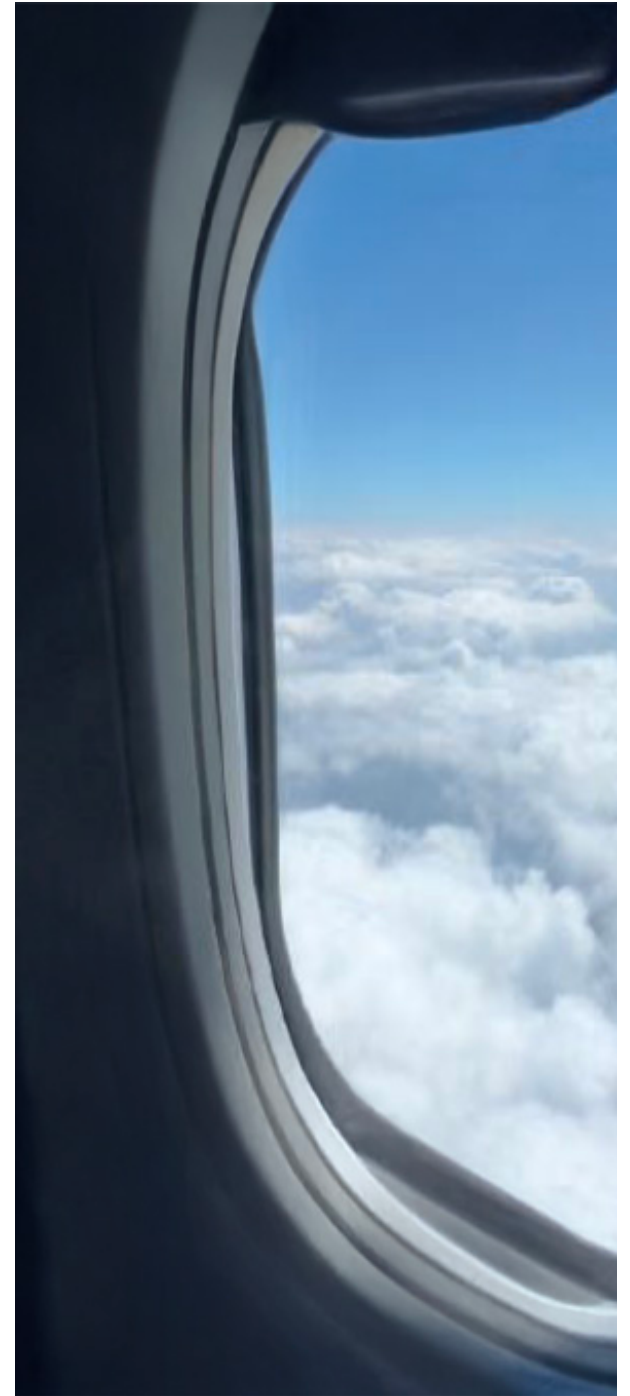
## Polycarbonate Profiles & Connectors

Klar's polycarbonate profiles and connectors are made with 100% virgin resin to meet the highest quality standards in the market. Our state-of-the-art technology allows for precision and flexibility to achieve a clean, professional finish when connecting panels together and sealing the ends securely

### Characteristics:

- UV protection
- Cold bending
- Easy installation
- Lightweight

		
<p><b>CONNECTOR</b> H-shaped profile</p>	<p><b>CONNECTOR</b> Bottom &amp; Cap connectors</p>	<p><b>PROFILE</b> U-shaped</p>
<p><b>USE</b> Polycarbonate Sheet Thickness 4, 6, 8, 10mm</p>	<p><b>USE</b> Polycarbonate Sheet Thickness 4, 6, 8, 10mm</p>	<p><b>USE</b> Polycarbonate Sheet Thickness 4, 6, 8, 10mm</p>
<p><b>DESCRIPTION</b> One-piece, lightweight and ideal for quick installations.</p>	<p><b>DESCRIPTION</b> Its main function is to connect sheets together without the need to pierce them and offering a firm and secure installation. It is used in flat and curved installations. It significantly reduces the installation time.</p>	<p><b>DESCRIPTION</b> Avoids the entry of undesirable agents such as water, dust or insects. It is placed at the endings of the sheet, over the aluminum tape to ensure a correct installation.</p>





## RECOMMENDATIONS

### Transportation:

- Avoid friction between sheets.
- Always use flat and stable pallets.
- Avoid sliding the sheets on top of each other when loading and unloading.
- Lift the sheets by hand without dragging them or by using suction cup lifters.

### Storage:

- Storing the sheets in an incorrect position can permanently deform the product.
- Stack the sheets over their entire area without leaving overhangs.
- Protect the top sheet of the stack with cardboard or any other material that does not damage the surface of the sheet.
- Do not expose the sheets to sunlight, high humidity or high temperatures; otherwise, the adhesion of the protective film to the sheet may be lost.
- Remove the protective film (both sides) once the installation is completed.

*\*For more information on installation and handling, please refer to the Installation Manual.*

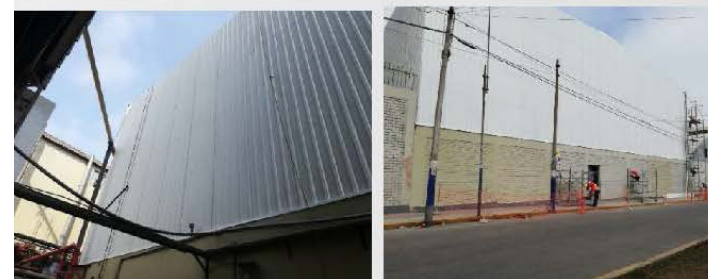
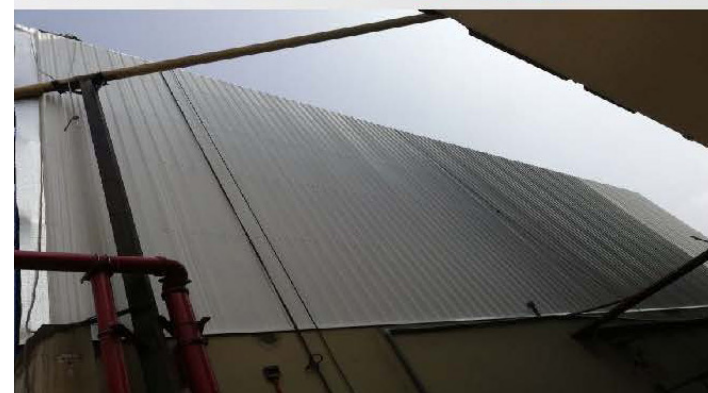
## **LEGAL NOTES**

The information and in particular the recommendations on the installation and end use of Klar products are provided in good faith, based on Klar's current knowledge and experience with its products, provided they are properly stored, handled and transported and installed under normal conditions. In practice, the differences in materials, substrates and site conditions where Klar products are to be applied are so particular that no warranty regarding the marketability or suitability of the product for a particular purpose can be derived from this information, nor can any contractual liability be inferred. The property rights of third parties must be respected. All orders accepted by Klar are subject to Klar's General Terms and Conditions of Business for the Sale of Products.

Users should always refer to the latest edition of the products' Technical Data Sheet; copies of which will be provided upon request or can be accessed on the Internet through our website [www.klar.com.pe](http://www.klar.com.pe)











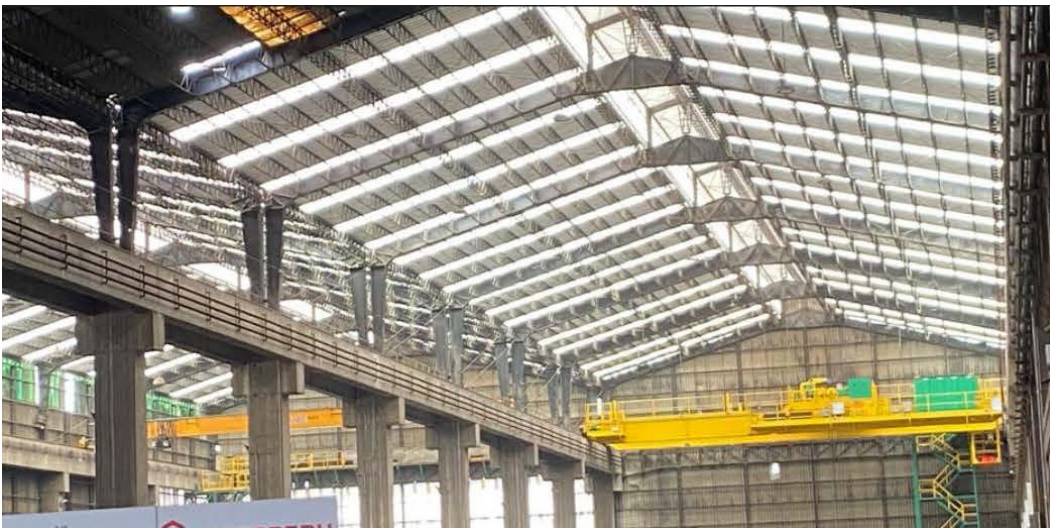








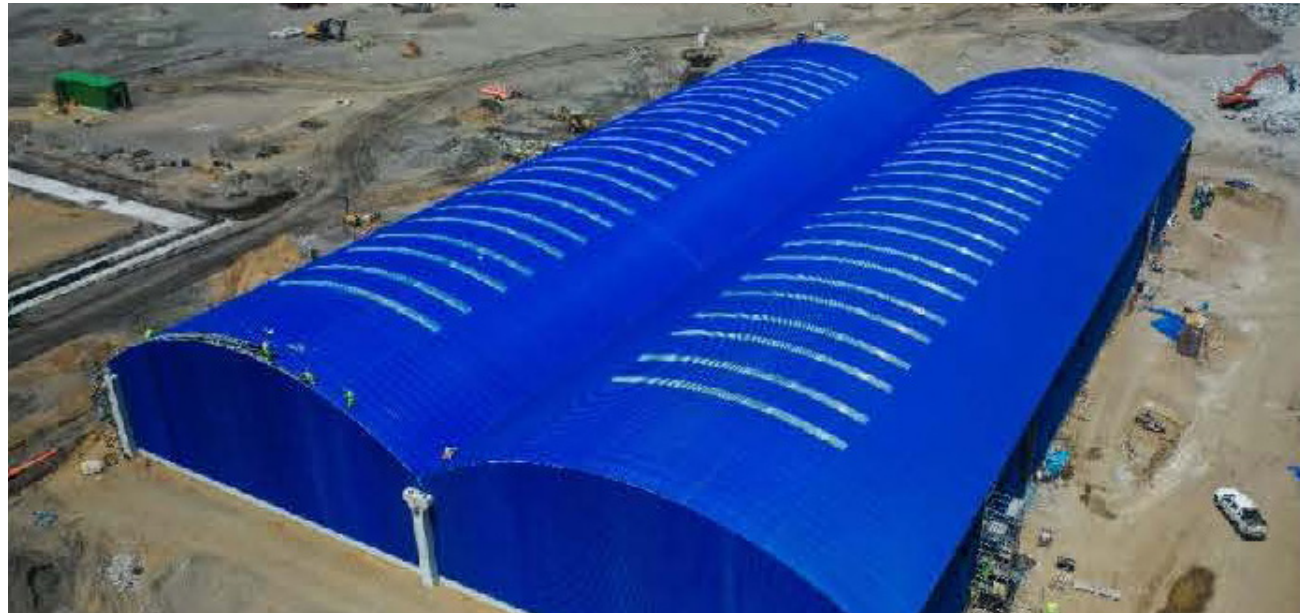














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