

### **NEW LAUNCH**

# SOLID POLYCARBONATE SHEET

Ideal for all your projects





### **ABOUT US**

Klar is a reliable, leading manufacturer, regional distributor, and experienced exporter of superior thermoplastic products for architectural, industrial, commercial, agricultural, and DIY construction projects. We are committed to the highest quality standards and product innovation as well as an excellent US-based customer service so you can rely on a rapid response, logistics management and short lead times. Our brands are synonymous of superior quality, durability, sustainability, and value in all the markets and countries we serve.

### **PORTFOLIO OF PRODUCTS**



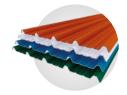
Polycarbonate Twinwall sheets



Polycarbonate Profiles & Connectors



Solid Polycarbonate



PVC Ribbed & Corrugated Panels



Colonial Tile

### **INTERNATIONAL PRESENCE**



### **KEYS TO SUCCESS**

SUPERIOR QUALITY

EXCELLENT LEVEL OF SERVICE
FAST RESPONSE (LEAD TIME)

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INTERNATIONAL REACH



# SOLID POLYCARBONATE SHEET



### **INTRODUCTION**



# KLAR SOLID POLYCARBONATE



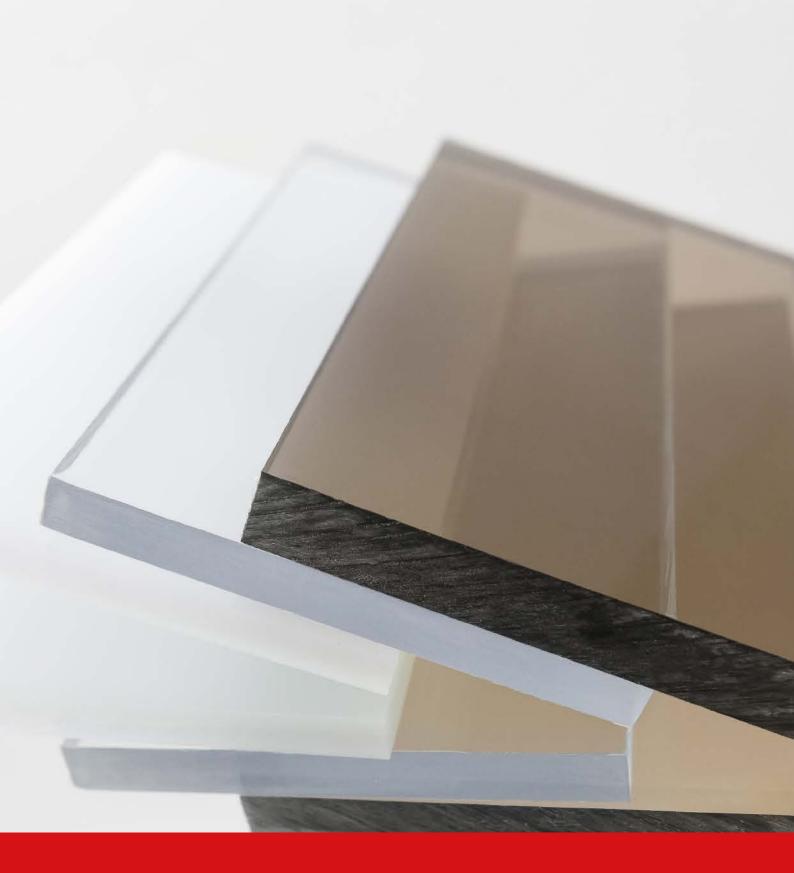




Klar Solid Polycarbonate sheets excel in providing versatile and efficient solutions for a wide variety of applications. Thanks to its unique properties, this material has become a leading choice in various sectors.

Whether in construction, the automotive industry or the manufacture of consumer products, Klar Solid Polycarbonate sheets offer significant benefits. In the construction sector, the impact resistance and durability of solid polycarbonate make it a favorite choice for transparent roofs, skylights and partitions. Its ability to withstand adverse weather conditions, such as ultraviolet radiation, rain and wind, makes it a durable, lowmaintenance choice.





# ADVANTAGES



### **ADVANTAGES**

### IMPACT RESISTANCE

It provides high impact resistance, being 250 times more resistant than glass. It withstands hammer blows without difficulty, which makes it ideal for security and protection purposes.



Impact Durability



### UV PROTECTION

Our solid polycarbonate is available with 2 side UV protection, allowing protection and color preservation against ultraviolet radiation.



Available with UV protection on both sides



# BRIGHTNESS AND TRANSPARENCY

It has excellent light transmission and clarity, similar to glass, becoming the ideal option for applications requiring high light transmission levels.



Excellent transparency and brightness





### **ADVANTAGES**

# FIRE RESISTANCE

Classification B1, non-combustible and fire safe. In case of fire, the sheets burn without spreading flames. They are self-extinguishing and do not generate incendiary droplets or excessive smoke.



**Fire Safety** 



### LIGHTWEIGHT AND FLEXIBLE DESIGN

The flexibility of solid polycarbonate allows curved structures and innovative designs that would not be possible with rigid materials.





# **ACOUSTIC INSULATION**

Improves acoustic comfort by reducing unwanted noise transmission, contributing to a quieter and more relaxing environment.



Acoustic insulation





## **APPLICATIONS**



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# 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



### **APPLICATIONS**



# 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



### **PRESENTATIONS**

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Finish	Smooth / Prismatic		
UV Protection	Both sides		
Widths	Meters         Inches           1.22 / 2.05         48 / 81		
Lengths (m)	<b>Feet</b> 8 / 10 / 20		
Thickness(mm)	2 - 3 - 4 - 5 - 6 - 8 - 10 - 12		
Colors*	Yellow, Blue, Opal, Bronze, Light Blue, Smoke, Reflective Gray, Clear, Turquoise, Green		

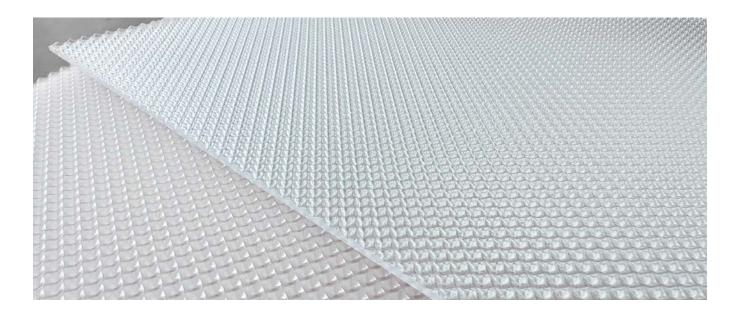
<sup>\*</sup> Other lenghts and colors are available subject to minimum order and open request.

# CLEAR OPAL REFLECTIVE GRAY SMOKE GREEN BRONZE BLUE TURQUOISE YELLOW LIGHT BLUE

<sup>\*</sup>Check color availability with your Klar consultant.



### **PRISMATIC**



# 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.







### **PROPERTIES**



PROPERTIES	METHOD	UNITS	SOLID POLYCARBONATE
GENERAL			
Density	ISO 1183 - 1	G/cm³	1.20
Water absorption (24hrs)	ISO 62	%	0.16
MECHANICS			
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/m²	2400
Notched impact strength charpy	ISO 179 - 1	KJ/m²	No breakage
Notched impact strength izod	ASTM D256	KJ/m²	>45
OPTICS			
Refractive index	ISO 489	-	1.109
Light transmission (2mm)	ASTM D1003	%	89
Haze	ASTM D1003	%	<1
THERMAL			
VICAT Softening temperature (50N)	ISO 306	°F	257



### **CLEANING AND CARE**

- Remove dust with a dry cloth, then wipe with a damp cloth and dry immediately with a cloth or flannel.
- Do not clean the sheets in strong sunlight or at very high temperature. Do not steam wash.
- Do not use abrasive or alkaline cleaners, brushes, scouring pads or sponges.
- Do not expose the sheets to chemicals such as varsol, benzene, gasoline, thinner, turpentine, acetone, carbon tetrachloride, muriatic acid or silicones not recommended for polycarbonates.

### **RECOMMENDATIONS**

### **Transport**

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

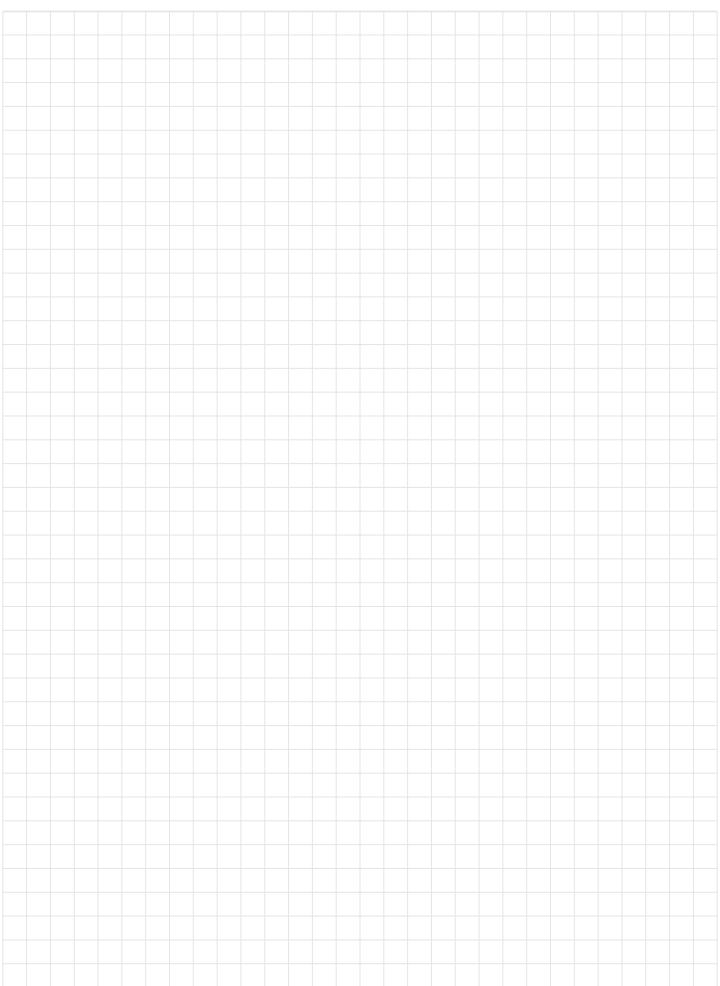
### Storage

- 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 in the stack with cardboard or any other material that does not damage the surface of the sheet.
- Do not expose the sheets to the sun, 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 complete. \*For more information on installation and handling, please refer to the installation manual.

### **LEGAL NOTICES**

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 will be applied are so particular that no warranty as to merchantability or fitness for a particular purpose can be inferred from this information, nor can any contractual liability be inferred. The proprietary rights of third parties must be respected. All Klar orders are subject to the general terms and conditions of contract for the sale of Klar products. Users should always refer to the latest edition of the product data sheet, copies of which will be made available upon request or can be accessed on the Internet via our website www.klar.us.com











www.klar.us.com

Advice is given and orders are accepted in accordance with the terms of our current General Conditions of Sale and Delivery. Users must be familiar with and use the latest and updated version of the relevant Product Data Sheet, copies of which will be sent on request.

For further information, please consult our technical department or refer to our corresponding data sheets on our Web Site: www.klar.com.pe www.klar.us.com

