

JETLITE[®]
MULTI WALL POLYCARBONATE SHEET

SUNLITE[®]
POLYCARBONATE SHEET

HEAVY DUTY POLYCARBONATE SHEETS | **DURABLE**
VERSATILE
NON-CORROSIVE

- SOLID POLYCARBONATE SHEET
- ONLINE / CORRUGATED PROFILE SHEET
- MULTIWALL POLYCARBONATE SHEET
- MULTIWALL POLYCARBONATE PANEL
- MULTICELL POLYCARBONATE PANEL
- POLYCARBONATE BOTTLE
- POLYCARBONATE SHIELD
- POLYCARBONATE BATON / TUBE
- POLYCARBONATE VENTILATOR BASE PLATE
- TURBO VENTILATOR

www.vmiplastic.com
www.vmigroup.net



VMI Plastic Pvt. Ltd.



Company Profile

VMI GROUP with turnover more than 500 crores is engaged in the Copper & Aluminium Enamelled Wire, Plastics Jars and Mineral Bottles refilling industry since last 45 years. We are having our units at Jammu (JK), Gurugram (Haryana) and Bhiwadi (Rajasthan). VMI Group, having a team of highly experienced professionals. VMI Group has spread its wings in diverse direction which include Copper Rods, Copper Wire, Winding Wires, Copper Strips & Flats, Aluminum Enamelled Wire, Super Enamelled Wire and Polycarbonate Sheets.

Vidya Metal Mfg. Co. Pvt. Ltd. (An ISO 9001:2015 Certified Company) a group company has established a unit at Bhiwadi (Rajasthan) to manufacture Electrolytic Copper Rods & Strips, Busbar & Profiles with latest imported plant & technology to produce International standard products conforming to BIS Standards. We are fully equipped with in house laboratory and quality parameters are tested on line as well as off line for each batch of products.

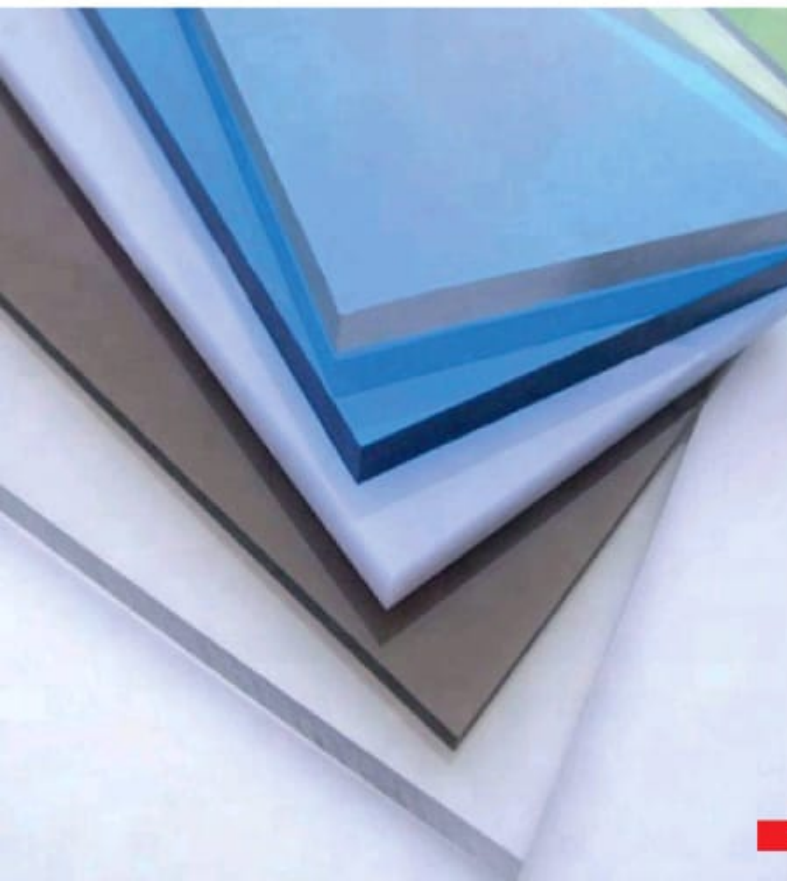
Alliance Copper Concepts Pvt. Ltd. (An ISO 9001:2015 Certified Company) is an association of vast experience accompanied by young zeal & enthusiasm. Our organization is very well equipped to deliver its customers the best quality products at the most reasonable prices, being our works situated at one of the most economically strategic locations of India, Jammu (JK). We manufacture ACC Enamelled Winding Wires made of C.C. Copper, range between 8-SWG to 40-SWG. These wires are insulated with variety of Wire Enamels, e.g. Polyester, Modified Polyester, Polyesterimide (Hermetic) and Dual Coat (Lmide-Amide).

VMI Plastic Pvt. Ltd. (An ISO 9001:2015 Certified Company) is a leading manufacturer of Polycarbonate Sheet.

In the year 2000 we entered into the field of manufacturing **Polycarbonate Bottles** under the name of **VMI Plastics**. This unit is situated at Gurugram (Haryana). Presently we are supplying bottle to The Hindustan Coca-Cola and others mineral water bottle manufacturer.

In the year 2004 VMI Plastics (An ISO 9000:2015 Certified Company) entered into manufacturing of Polycarbonate Sheet under the brand name '**SUNLITE**' **Polycarbonate Sheet**. We have a state of the art manufacturing plant to make SUNLITE Polycarbonate Sheet through the co-extrusion process from **Sabic / Covestro Raw material**. The factory is situated at Gurugram (Haryana). Our SUNLITE Polycarbonate Sheet as a building material so revolutionary it would change the way you think about this medium. We are the First Manufacturer to be Certified from BIS and having BIS Licence No. CM/L 2631348 for manufacturing Polycarbonate Sheet.

SUNLITE Multicell Polycarbonate Panel Sheet (An ISO 9001:2015 Certified Company) In the year 2019 we entered into the field of manufacturing Multicell Panel Sheets.



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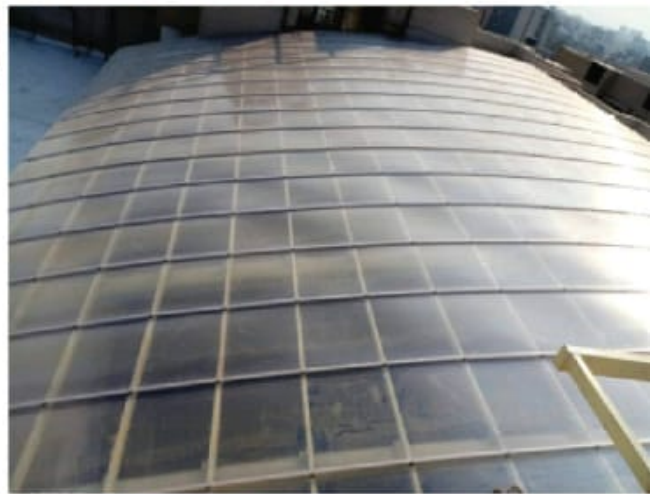
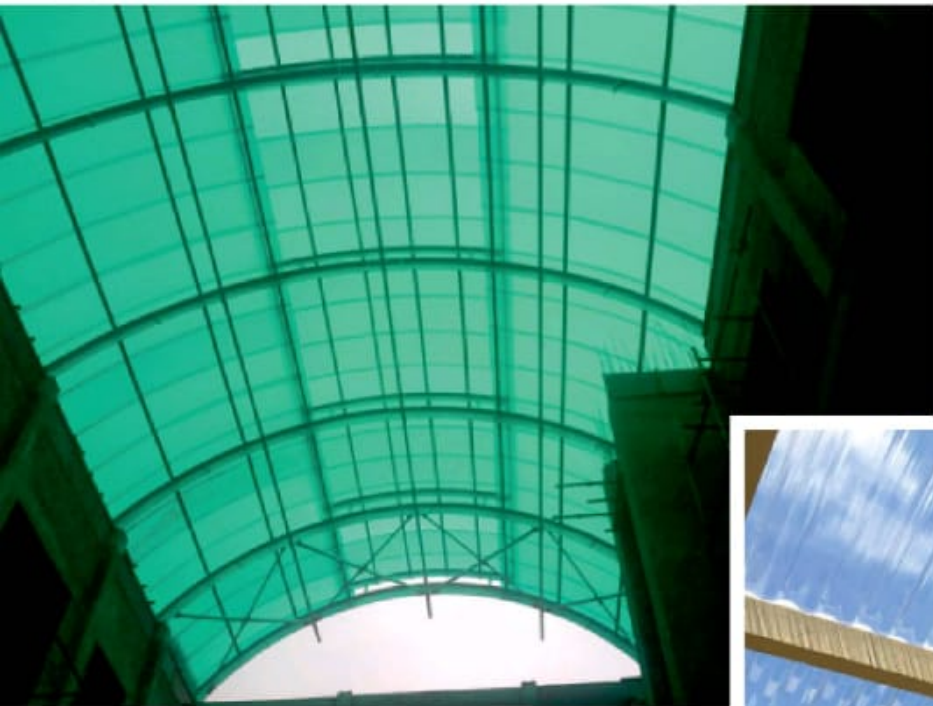
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SUNLITE Solid Polycarbonate Sheet Compact • Corrugated • Embossed

Combines ultra-high impact resistance with clarity, making it the material of choice for demanding applications. These sheets are virtually unbreakable, yet it is transparent as glass at less than half its weight. Solid Sheet can be cold bent and easily fabricated and formed, making it ideal for barrel vault roofing, skylights, architectural roofing and glazing. Clear, translucent and opaque and are also ideal as machine guards, sound barriers, anti-vandal and safety glazing.

Feature of a Polycarbonate Sheet

High light transmission: 25% to 92%, depend upon color and thickness

Light weight: Only half of glass in the same thickness

Temp resistance: -40°C to 120°C

Impact resistance : 30 times of acrylic and 250-300 times of glass in the same thickness

Sound insulation: It is 3-4dB higher than glass in the same thickness

U.V Resistance : SUNLITE Polycarbonate sheets have a UV coating on each side to protect the sheet while exposed to the weather

Fire resistance: It extinguishes automatically after leaving flame and doesn't produce toxic gases

Benefits of Polycarbonate Sheet

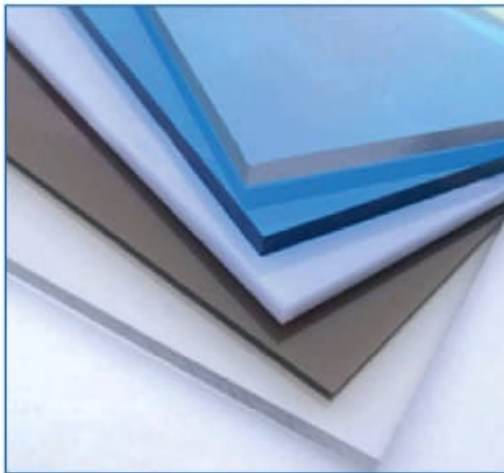
- Easy to install and cold bent
- Save energy
- Available in Different Colours

Applications of Polycarbonate Sheet

- Electrical and hardware gadgets & optical plates
- Automobile industry
- Greenhouses and Nurseries
- Police gear and security applications



Polycarbonate Compact Sheets



SUNLITE Compact Sheets are both side UV coated and has transparency equivalent to glass, virtually unbreakable, lightweight, can be cold bent, easily fabricated and can be customized in various shapes and sizes. The transmittance of the light will be 50-92% depending upon the thickness and color of the sheet. This material is highly recommended for any type of trapezoidal profiling

Range: Thickness 1mm to 10mm, Width upto 2135mm, Length upto 100 Ft. Coil/4'X8' or as per requirement

Colors: Clear, Blue, Brown, Opal, Green, Smoke, Lake Blue, Red, Yellow, Pink or as per requirement

Applications: Industrial northlight roof, Roof light, Atrium, Canopies, Machine guard, Sound barrier, Partition, Pool shade, Display window etc

Standard: IS 14443:1997 BIS License No. CM/L 2631348

Polycarbonate Diamond Sheets



SUNLITE Diamond Sheets are also both side UV coated non-transparent with coarse grain texture on one side and polished on the other side. The transmittance of the light will be 50-90% depending upon the thickness and color of the sheet. This material is highly recommended for indoor/outdoor application for its aesthetic applications

Range: Thickness 1.4mm to 4 mm Width upto 2135mm Length upto 100 ft. coil or customized size as per requirement.

Colors: Clear, Blue, Brown, Opal, Green, Opaque silver or as per client requirement

Applications: Interior designing, partitions, parking sheds window glass, Decorative display.

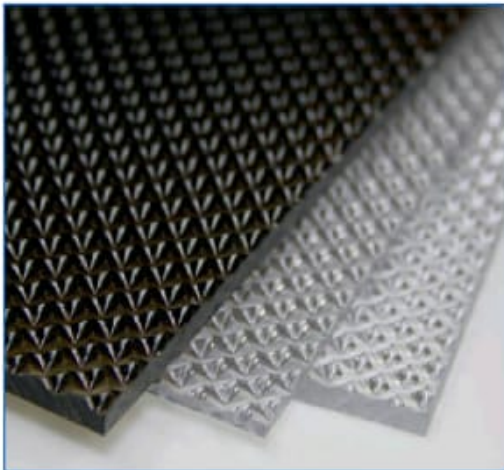


Technical Table

S.No.	Property	Standard	Unit	Result Obtained
1	Tensile Strength Test Speed : 5mm/Min	ASTM D 638	Mpa	58.6
2	Elongation at break	ASTM D638	%	19.2
3	Tensile Modulus	ASTM D638	Mpa	2261.5
4	Izod Impact Strength (Notched)	ASTM D 256	Kj/m ²	77
5	Rockwell Hardness R Scale 60kgf load	ASTM D785	-	119
6	Flammaability	UL 94	-	V2
7	Coefficient of Linear Thermal Expansion CLTE (30°C to 60°C)	ASTM E 228	°C	6.89 X10 ⁻⁵
8	Vicat Softening point @ 1kg load	ASTM D1525	0C	148.96
9	Specific Gravity	ASTM D 792	-	1.21
10	Flexural Strength	ASTM D 790	Mpa	77
11	Thermal conductivity @ 55° Mean Temperature	ASTM E 1530	W/mK	0.133

* Conducted on 2.0mm thick plain Polycarbonate Sheet

Prismatic Polycarbonate Sheets



SUNLITE Prism Sheets are both side UV coated transparent with prism texture on one side and polished on the other side.

The light transmission of these sheets are upto 88% depending upon the color and thickness of sheets.

Range: Thickness 1.7mm to 3 mm Width upto 2135mm Length upto 100 Ft. coil or customized size as per requirement.

Colors: Clear, Blue, Brown, Opal, Green, Opaque silver or as per requirement.

Applications: interior designing, partitions, window glass, decorative interior designing purpose, fencing and false ceiling etc.

Polycarbonate Embossed Sheets



SUNLITE Embossed Sheets are both side UV coated non-transparent having fine grain texture on one side and polished on the other side. The characteristic of the sheet is similar to the transparent or compact clear sheet. The transmittance of the light will be 35-88% depending upon the thickness and color of the sheet. This material is highly recommended for any type of trapezoidal profiling.

Range: Thickness 1.2mm to 6.0mm Width upto 2135mm Length upto 100 Ft. coil/4'X8' or as per requirement

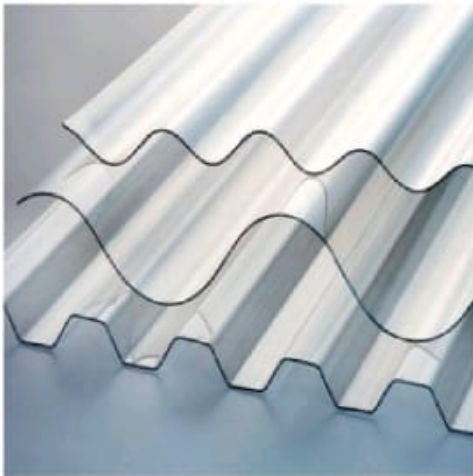
Colors: Clear, Blue, Brown, Opal, Green, Opaque silver or as per requirement.

Applications: Industrial roof light, Skywalk, LED light cover, Partition, Pool cover, False ceiling, Greenhouse, Bus shelter, etc.

Standard: IS 14443:1997 BIS License No. CM/L 2631348



Corrugated / Online Profile Polycarbonate Sheets



SUNLITE Corrugated Polycarbonate Sheet is an outstanding roofing material with superior physical properties combined with unmatched strength. They conserve the energy and improve the quality of working environment. These Sheets can be cold bend / Online co-extruded to integrate with any metal profile. Available in a wide variety of colors with different textures.

Features

- Impact resistant - virtually unbreakable
- High light transmission
- Weather and UV resistant
- Wide temperature range
- Blocks 99% of harmful UV
- Lightweight
- Good fire rating
- Long term weather Resistant
- Easy to work with and install
- Extensive warranty

Applications

- Architectural roofing and skylights
- Industrial roof lights
- Agricultural greenhouses
- Residential roofing
- Light roofing and awnings
- Indoor and outdoor signage
- Walls, roofs, windows, screens

Extruded Profiled Sheet :

We are making three types of online co-extruded both side UV polycarbonate sheets as follows:

C-130: These sheet profiles are matching with asbestos corrugation available as transparent and translucent.

Range: Thickness 1.5mm to 3.0mm, Width 1040 mm and Length up to 12 meter in sheet form.

Colors: Clear Opal, Brown, Blue and Green or as per requirement.

C-76: These sheet profiles match with corrugated galvanized iron sheets. They can be customized as transparent or translucent.

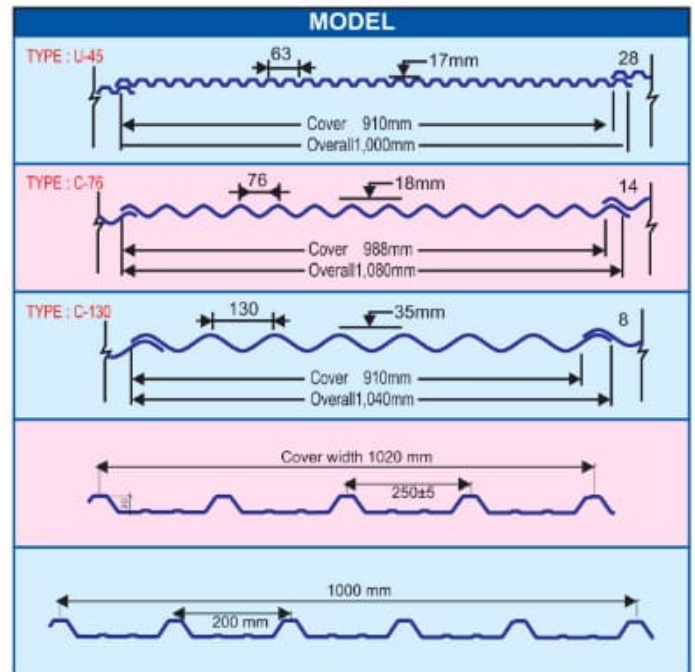
Range: Thickness 1.2mm to 3.0mm, Width 1080 mm and Length upto 12 meter in sheet form.

Colors: Clear Opal, Brown, Blue, Green or as per requirement.

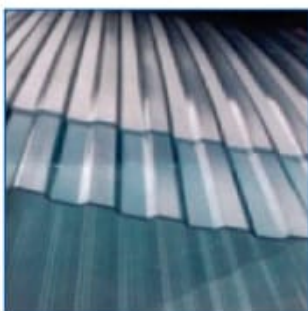
U-45: These sheets are ribbed structures available as transparent and translucent.

Range: Thickness 1.2mm to 3.0mm, Width 1220 mm and Length upto 32 meter. **4. On Line Trapezoidal Profile :** These sheets are Produced to match accurately with different Metal profile Thickness 1.2mm to 3.0mm, Size as per requirement

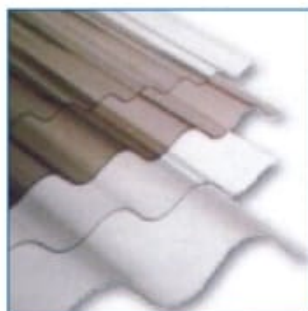
Colors: Clear or as per requirement.



We at VMI Manufacture all types of Trapezoidal polycarbonate Roofing Profiles as per the customer's requirement



U-45 (Zip Profile)



C-76 (GI Profile)



C-130 (Asbestos Profile)



Trapezoidal Profile



Multiwall Polycarbonate Sheet

SUNLITE®, JETLITE® Multiwall Sheet is manufactured by VMI Plastic Pvt. Ltd. a company renowned for its expertise in Roof Glazing materials produced under Quality Management System as per ISO 9001 : 2015.

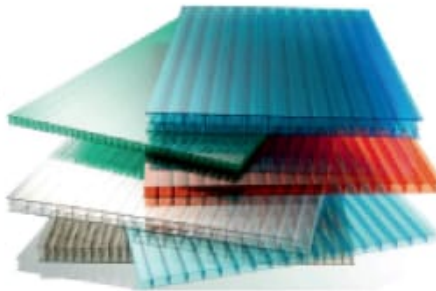
SUNLITE® Multiwall Sheet is a remarkable insulating glazing material manufactured from damage resistant polycarbonate with added co-extruded protection from the effects of UV weathering.

Polycarbonate has earned an excellent reputation for design flexibility, toughness, resilience, stable performance in temperature extremes, excellent fire rating and economy.

These unique qualities along with the extended UV protection and insulating Multiwall structure of SUNLITE® Multiwall Sheet, combine to provide the ideal glazing option for a range of domestic, leisure and industrial applications.

Applications



- External & internal Glazing
- Commercial and retail roofing
- Sports facility roofing
- Covered walkways, awnings & canopies
- Open markets - light roofing
- Service station roofing
- Parking structure covering
- Swimming pool covers
- Residential Porticos, Stadium, Railway, Stations & Airports



Benefits

- Light weight withstands very high loads
- Accommodates thermal expansion and contraction
- Fast and easy installation
- Leak-proof system - no fastener penetration into roofing and glazing panels
- High thermal insulation
- Ideal for curved designs
- Double-sided UV protection as standard
- Tints reduce solar heat gain
- Save energy, Easy to Install

PRODUCT RANGE & TECHNICAL DATA

Structure	Thickness (mm)	Approx. Weight (Kg/m ²)	Maximum Width (mm)	Maximum Length (mm)	Light Transmission (%) (Clear)	Relative U-Values (W/m ² K) (Clear)	Colors
	4	0.85	1220/2100	11900	80	3.9	Clear Blue Green Opal Bronze Silver
	6	1.3	1220/2100	11900	78	3.6	
	8	1.5	1220/2100	11900	78	3.4	
	10	1.7	1220/2100	11900	78	3.3	
	10	1.8	2100	11900	72	3	
	16	2.8	1220	11900	60	2.3	

* Tolerances :Thickness ± 5%, Length ± 1/4", Width ± 1/8", Weight± 5%
Different Length and Colours are available on Quantity Orders



PC Connector and End Cap



PC connectors are produced by **Covestro/Sabic** Raw Material. It not only make the installation fast and convenience, but also can effectively prevent the sheet broken when make holes in the sheet. Using the PC connectors also can make the waterproof dealing more simple and easier.



Multicell Polycarbonate Panel

Sunlite® Polycarbonate Multicell Panel Offer Various Benefits

Sunlite® Multicell Panel is a type of connection between adjacent Sheets. The edges of two adjacent panels are interlocked in a variety of ways. Sunlite® Multicell Panel designs reduce the use of gaskets and sealants, minimizing the chance for leakage. It offers a lightweight, leak-proof design that withstands very high loads and accommodates expansion and contraction. Sunlite® Multicell Panel construction provides superior quality of diffused daylight, increases impact protection, and reduces wind uplift compared of traditional translucent systems.

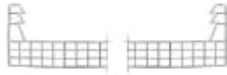

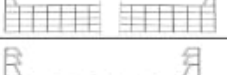
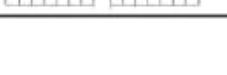
Product Specifications

Length

Maximum panel length is 11.90m (39 ft.)

Width (915/1050 mm)

Sunlite panels are available in thicknesses of: 8mm-22mm width 915 mm in thicknesses of: 6mm-12mm width 1050 mm

Panel	Thickness (mm)	Width (mm)	Length (mm)	U VALUE
	8-12	915	11900	0.42
	12-16	915	11900	0.37
	18-22	915	11900	0.32
	6-12	1050	11900	0.26

* Customised Length and Colours are available

Benefits

- Higher quality diffused daylight transmission
- Eliminates thermal expansion problem
- Easy Installation
- Significantly improved thermal insulation
- High Wind pressure and Snow Resistance
- No need for aluminium accessories
- Air and water leak proof system
- Extended UV protection layer

Applications

- Commercial Greenhouse
- Hobby Greenhouse
- Office Partitions
- Vertical Glazings
- Industrial Roofing
- Pool Enclosures, Patio Coverings
- Data Centers/Server Rooms
- Skylights, Domes, Shelters
- Canopies, Sheds
- Walkways, Airport, Sunrooms

Colors and Optical Properties

Color	6mm, 12mm		16mm, 22mm	
	LT (%)	SHGC*	LT (%)	SHGC*
Clear	65	0.6	50	0.51
opal	20	0.36	14	0.32
Bronze	30	0.5	30	0.39
Blue	30	0.59	30	0.43
Silver	12	0.27	10	0.26

LT - Light Transmission SHGC - Solar Heat Gain Coefficient

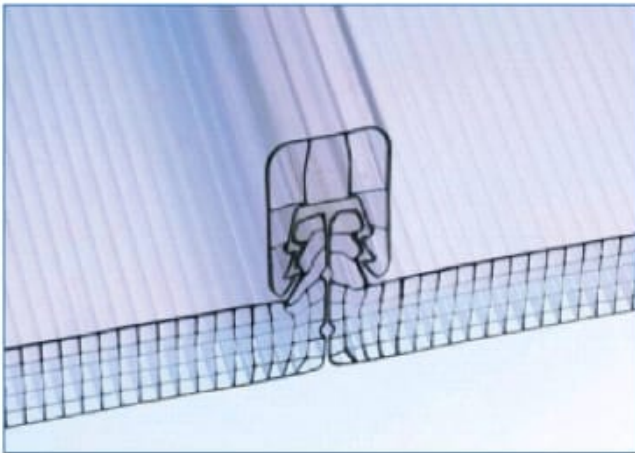


- LT-Light Transmission in % according to ASTM D-1003, measured between ribs.
- SHGC-Solar Heat Gain Coefficient is the ratio of solar heat gain through the sheet and the incident solar radiation.
- It take into account all conduction, convection and radiation effects involved.
- The lower this number, the more solar heat being blocked

Standard Sunlite Multicell panels have UV protection on both sides.



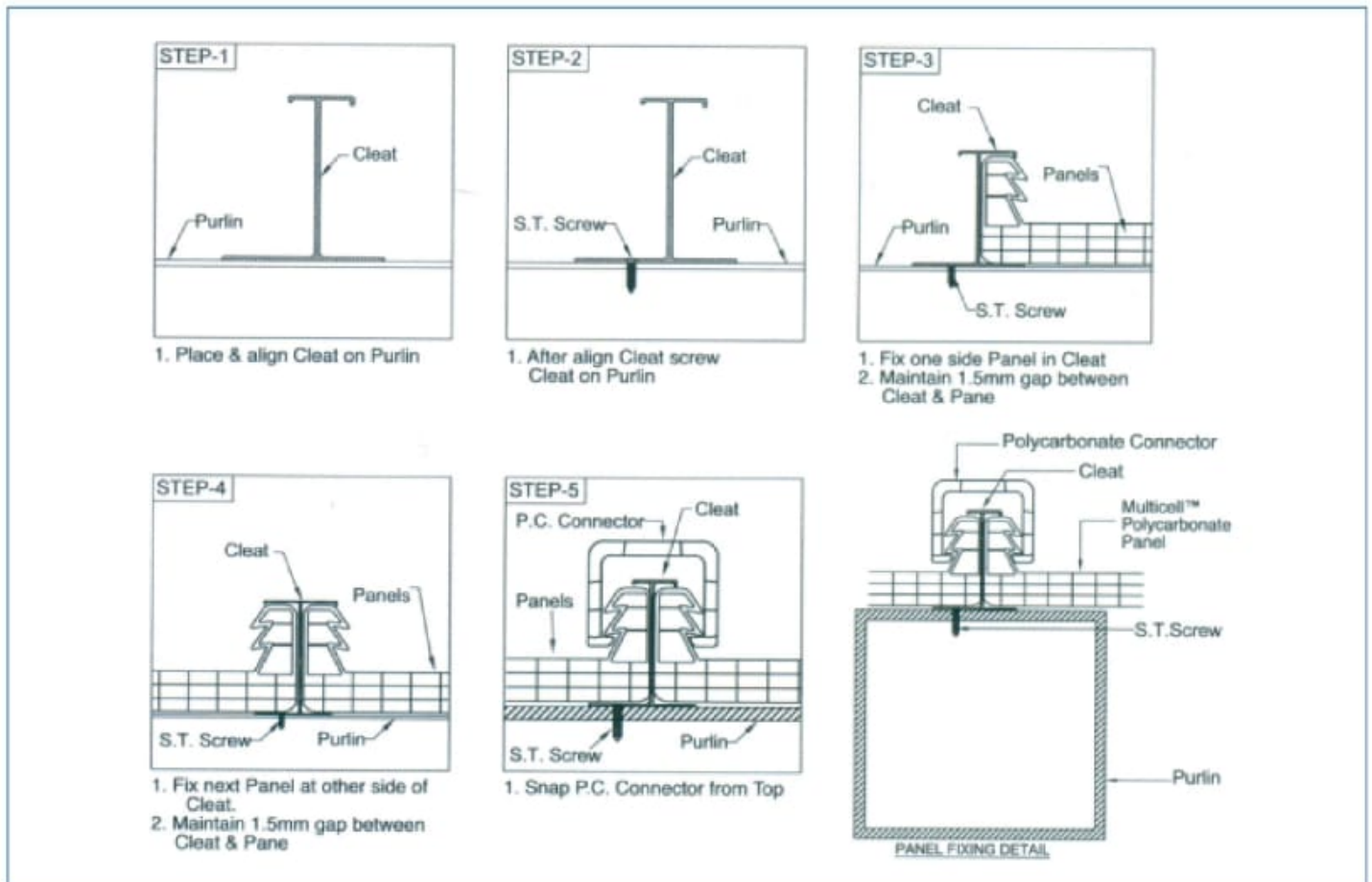
Multicell Installation



Installation of Sunlite® Multicell Polycarbonate Panels

These panels with vertical standing seam at both ends are fastened to existing structures via purpose built stainless steel double tooth brackets. The panels are integrated in between, with Polycarbonate connector.

They are assembled via bottom connectors mad of steel or Polycarbonate connectors on top. These Polycarbonate sheets conveniently implement for designing the perfect translucent roof for any contemporary building.



Accessories of Sunlite® Multicell Polycarbonate Panel System



Polycarbonate Connector



Polycarbonate End Cap



Aluminium U Profile



Aluminium Space



SS Cleat (304)



SUNLITE Polycarbonate Baton Stick

SUNLITE Tube/ Baton is Especially meant for the use of Police, paramilitary, allied forces and other security/detective services. These are produced in Different sizes, in Diameter, Length, Thickness and colours in Bulk quantity. Due to lightweight, durable and quite handy these are the prime choice of the user as their guard protection. These are durable because of its outstanding mechanical strength.

Benefits

- Grip handle
- Transparent
- Virtually unbreakable
- Excellent protection provider
- Long life
- Secure and Comfortable
- Scratch and fire resistant

Applications

- Police
- Security Guards
- Body Guards
- Night Travellers
- Individual

Specifications

- Diameter : 3.5mm, 4.00mm & 5mm
- Length : 50cm, 60cm, 75cm, 100cm
- Weight : 150-500 gms

* Other sizes and varieties also available as per standard



SUNLITE Polycarbonate Shield

Our Polycarbonate Shield is also meant for the use of Police, paramilitary, allied forces and other security/detective services to provide safety and excellent protection to the user.

Features:

- Transparent
- Light Weight but strong
- Excellent protective against stone pelting, Iron-rod, brick, cane attacks.
- Thermoformed out of 3 mm or 4mm thick
- Comfortable arm grips in use/wearing fitting with adjustable Strap
- Durable and long life
- High impact resistance
- Higher structural strength by design
- UV stabilized sheet used to ensure long life
- Ergonomic shoulder straps for ease of carriage and in operation
- Sturdy, comfortable arm grips

Dimensions

- Length: 930 mm (± 10 mm)
- Curved Surface: 625 mm (± 10 mm)
- Flat: 590 mm (± 10 mm)

Thickness

- 2.7 mm (± 0.3 mm)
- (3.0mm Thick PC Sheet)
- 3.7 mm (± 0.3 mm)
- (4.0mm Thick PC Sheet)

Weight

- 2.5 kgs. (± 0.100 kgs.)
- (3.0mm Thick PC Sheet)
- 3.0 kgs. (± 0.150 kgs.)
- (From 4.0mm Thick PC Sheet)

* Other sizes and varieties also available as per standard



SUNLITE Polycarbonate Tube / Pipe

SUNLITE Polycarbonate Tube & Pipes are made from high quality Solid Polycarbonate material. They are light weight having excellent balance of clarity and toughness. These can be made in different variety sizes and colours to meet out the requirement of the customers.

Because of its high strength, transparency, VMI Tube & Pipe are virtually unbreakable and scratch resistant, chemical resistance, U.V. resistance, uniform & smooth, weather, water and fire resistant. These pipes are used in Laboratories, Mineral Water Bottling, Water Filter Plants, Hot water pipe line and Allied Industry.

Benefits

- Its lightness
- Do not suffer aging
- Long lifespan
- Low maintenance cost
- Recyclable after use





SUNLITE Polycarbonate Ventilator Base Plate

The Polycarbonate base plate is being used to fix Turbo Ventilators on roofs. We can manufacture these base plates in matching to all roofing profiles. We are the manufacturers who can make these base plates in customized profile for our clients. We have in-house mould design and mould making facility. So we have served faster in case of customized requirement. The polycarbonate serves as an excellent replacement for FRP Base Plate.

Profile

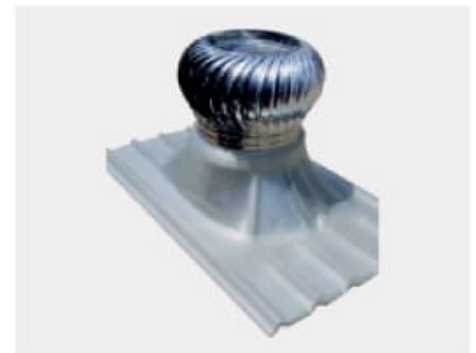
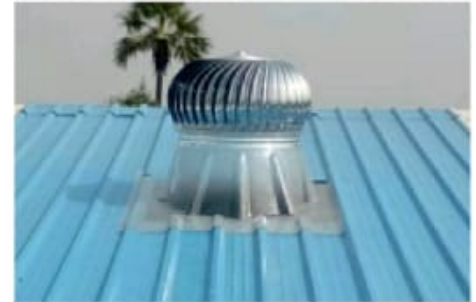
- It gives more the life than FRP base plates.
- Virtually unbreakable and design freedom.
- UV stabilized & temperature resistant (-40°C to +130°C). Compared to FRP, PC base plates have minimal thermal expansion and contraction, which prevents cracks in long run.
- Light Transmission - PC Base plate stable transmits light up to 85% for long time. FRP transmit up to 60% light, and it will be reduced day by day.
- Maintenance Free - PC base plate dose not retain dust it is looking clean and hygienic. FRP has retain dust and become dirty after some time.
- Available in 21" and 24" Diameter, also customized as per requirement.
- Our expertise in roofing products enables us to design base plates matching with metal sheet precision, thus eliminating the possibility of leakage.
- Polycarbonate ventilator base plate help in cutting down electricity charges, in today's context, it is a great saving and also contributing towards saving the environment.

Applications Used in factories, warehouses, workshops, industrial sheds and domestic applications.

Polycarbonate vs FRP Polycarbonate sheets are comparatively superior to the entire conventional skylight materials like FRP.

Property

Property	Polycarbonate	FRP
Impact Resistance	Excellent	Good
Weather Resistance	Excellent	Poor
Temperature Resistance	Up to 120°C	Below 100° C
Light Transmission	Up to 89%	Up to 60%
Fire Spread	Self Extinguishing	Flammable
Thickness	Uniform	Varying
Maintenance	Easy	Difficult
Corrosive	No	Yes



Turbine Ventilator

Helps to Remove Stale, Damp and Hot Air

Turbine ventilator extracts hot and stale air from building by creating a convection current and draw unwanted air upwards, allow fresh air at ambient temperature.

Increases Productivity

Once the hot air is removed from building, a new cooler air will replace. This increases workers' productivity as they do not get too exhausted, and it results in better output and more profits.

Saves Energy

Turbine ventilator operates utilising the slight energy of the wind, so it saves power cost. Even building that air-condition is installed, the hot air which accumulates above ceiling will be removed. However, the air condition can work at its lesser power consumption.





Our Channel Partners



VMI Group

SUNLITE
POLYCARBONATE SHEETS
VMI PLASTIC Pvt. Ltd.
Gurugram


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Vidya Metal Mfg. Co. Pvt. Ltd.
Bhiwadi


Alliance Copper Concepts Pvt. Ltd.
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