



**NOVALITE**  
TOGETHER, WE BUILD BRILLIANCE!



**SOLID & TEXTURED**  
Single Layer Polycarbonate Sheet



# NOVALITE®

## Solid & Textured Sheets

Through Scorching summers, Torrential rains and Freezing winters, the high impact resistant NOVALITE® Solid Polycarbonate sheets can withstand the extremities of weather. NOVALITE® combines a unique combination of features, allowing a wide range of applications in the modern world.

Polycarbonates are one of the most advanced polymers, in the field of Plastics today. They offer unequalled mix of desirable properties like High impact strength, Transparency, Light weight, Flexibility, Durability, Thermal resistance & Fire resistance.



### **FIRE RETARDANT (SELF EXTINGUISHING)**

NOVALITE® Solid sheets have an excellent flammability rating (UL94 V-2), are self extinguishing and suitable for use in areas prone to fire. These sheets do not release toxic gases & are comparatively much less flammable than GRP & Acrylic (PMMA) sheets.



### **EXCELLENT IMPACT RESISTANCE**

NOVALITE® Solid sheets possess exceptional impact resistance. Manufactured from high quality Bayer/ Lexan polycarbonate resin, which has 250 times the impact strength of glass and up to 40 times that of Acrylic (PMMA) sheets of similar thicknesses. NOVALITE® solid UV sheets are virtually unbreakable.



### **SUPERIOR CLARITY & LIGHT TRANSMISSION**

Clear NOVALITE® Solid sheets are as transparent as glass and have a light transmission of 90%. These sheets are also available in translucent configuration for better light diffusion.



### **HANDLING WITH EASE**

Due to their relatively light weight and high impact strength, NOVALITE® Solid sheets are convenient to store, handle and install. Conventional tools can be used to cut, trim or drill holes in the sheets.



### **DESIGN FLEXIBILITY**

NOVALITE® Solid sheets can be cold curved in both directions. That is parallel or perpendicular to the line of extrusion. This offers design flexibility to install these sheets over curved roofs or walls (Radius of curvature will be defined by the thickness of sheet to be used).



### **BROAD RANGE TEMPERATURE RESISTANCE**

NOVALITE® Solid sheets remain stable under extreme climatic conditions, remaining virtually unchanged between temperatures of -40°C & +120°C. This signifies that the sheets can perform below freezing point and above boiling point of water. Adequate allowance needs to be made for thermal movement in the fixing arrangement.



### **CHEMICAL RESISTANCE**

NOVALITE® Solid sheets are resistant to a wide range of chemicals. They are generally unaffected by acids, alcohols, glycols, mineral oils, animal and vegetable fats, kerosene and non-abrasive cleaners. However, they are effected by benzene, petrol, ketones, acetones, phenols, chlorinated and aromatic hydrocarbons, petroleum based paints, abrasive cleaners and solvents. For more information contact your distributor for a data sheet.



### **WEATHER PROTECTED**

NOVALITE® Solid sheets possess a special Ultraviolet barrier, which cuts off 99.9% of harmful ultraviolet radiation. This protection ensures zero damage to UV sensitive products like furnishings and upholstery, paint, carpets and also prevents harm to the human skin. Further, this UV layer is co-extruded and hence cannot peel or delaminate from the sheet, ensuring long term durability and sustained weather protection.



### **BETTER HEAT / THERMAL INSULATION**

NOVALITE® Solid sheets exhibit better insulation values against heat or cold when compared to glass or GRP sheets.



### **SIMPLE MAINTENANCE**

Clean using a mild detergent and warm water. Use a soft sponge. Rinse thoroughly with clean water.



### **NOVALITE® SOLID SHEETS WARRANTY**

NOVALITE® Solid UV co-extruded sheets are backed by a 10 years warranty against loss of light transmission and a 5 years warranty against hail breakage. Provided that all warranty conditions are satisfied, these warranties will be honored anywhere in the world where NOVALITE® Solid sheets are sold.

## PRODUCT RANGE



**SOLID**



**OPAQUE**



**EMBOSSSED**



**CRYSTAL**



**INWARD CRYSTAL**



**MAZE**



**SQUARE**



**RAINDROP**



**DELTA**



**WATERFALL**



**PRISMATIC**



**INWARD PRISM**



**MATTE**



**PINSEAL**



**MICROPRISM**

## STANDARD DIMENSIONS

Standard Width : 1220 mm & 2100 mm

MINIMUM THICKNESS	SOLID/OPAQUE/DIFFUSOR	EMBOSSED TEXTURE	CRYSTAL	INWARD CRYSTAL	DELTA & MAZE	RAINDROP	SQAURE	WATERFALL	PRISMATIC	MICRPRISM & PINSEAL
0.80MM	●									
1.00MM	●									●
1.20MM	●	●								●
1.50MM	●	●			●	●				●
1.80MM	●	●			●	●	●	●		●
2.00MM	●	●		●	●	●	●	●		●
2.20MM	●	●	●	●	●	●	●	●	●	●
2.80MM	●	●	●	●	●	●	●	●	●	●
3.00 - 12.00 MM	●	●	●	●	●	●	●	●	●	●
16.00MM	●									
20.00MM	●									

## LIGHT & THERMAL PROPERTIES

COLOR	LIGHT TRANSMISSION (%)	HAZE(%)	DIRECT SOLAR TRANSMISSION (%)	SHADING CO EFFICIENT (SC)	SOLAR HEAT GAIN CO EFFICIENT (SHGC)
Clear	90	<5	86	1.00	0.87
Clear Embossed	82 ~ 87	5 ~ 10	87	1.00	0.87
White Diffuser	85	100	77	0.92	0.80
Opal White	45	100	44	0.56	0.49
Grey	35	5 ~ 10	43	0.66	0.57
Bronze	50	5 ~ 10	53	0.74	0.64
Green	45	<5	66	0.84	0.73
Blue	35	<5	69	0.87	0.76

- Valid for thickness of 0.8mm to 2.0mm
- Light Transmission as per ASTM D-1003
- Light Transmission (%): Percentage of incident visible light that passes through an object.
- Direct Solar Transmission (%): Percentage of incident solar radiation that passes through an object
- Shading coefficient (SC): The ratio of the total solar radiation transmitted by a given material to that transmitted by normal glass, whose light transmission is 87%.

THICKNESS (MM)	PC-°K VALUE	GLASS K VALUE
3	5.49	5.87
5	5.21	5.80
6	5.09	5.77
9.5	4.69	5.68
12	4.35	5.58

## ACOUSTIC PROPERTIES

NOBALITE® sheets have excellent sound insulation properties as indicated in the table. Their ability to absorb sound waves combined with its impact strength make it the most ideal material for use in Clear sound barriers.

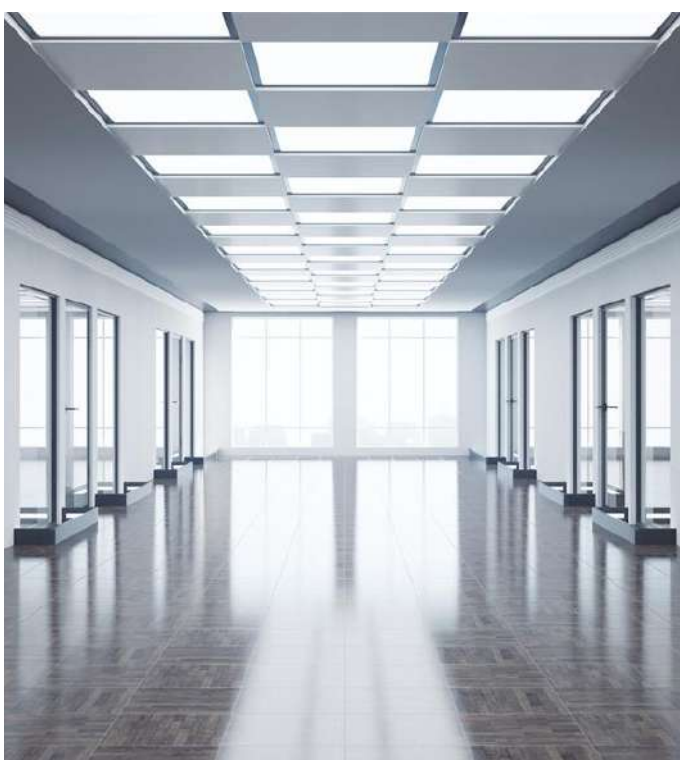
Thickness (mm)	Acoustic insulation (dB)
4	24
6	26
8	28
10	30

## PHYSICAL PROPERTIES

PROPERTY	STANDARD	CONDITIONS	UNITS	VALUE
Density	ASTM D792		g/cm <sup>3</sup>	1.2
Heat Deflection Temperature	ASTM D648	1.82 MPa	°C	130
Co-eff of Linear Thermal	ASTM D696		cm/cm °C	06.5 x 10 <sup>-5</sup>
Service Temperature				-40 to 120
Thermal Conductivity	ASTM C177		W/mK	0.21
Tensile Strength at Yield	ASTM D638	10mm/min	MPa	65
Tensile Strength at Break	ASTM D638	10mm/min	MPa	60
Elongation at Yield	ASTM D638	10mm/min	%	6
Elongation at Break	ASTM D638	10mm/min	%	>90
Tensile Modulus of Elasticity	ASTM D638	1.0mm/min	MPa	2300
Flexural Strength	ASTM D790	1.3mm/min	MPa	100
Flexural Modulus	ASTM D790	1.3mm/min	MPa	2600
Impact Falling Weight	ISO 6603/1	3mm/min	Joules	158
Rockwell Harness	ASTM D785		R Scale	125R
Light Transmission	ASTM D1003	3mm Clear	%	89
	ASTM D1003	3mm Bronze	%	48
Haze	ASTM D1003	3mm Sheet	%	<0.5
Yellowness Index	ASTM D1925	3mm Sheet		<1



## APPLICATIONS





## APPLICATIONS





**10\***  
YEAR WARRANTY

#### **Loss of Light Transmission: 10 Year Warranty**

Warranty For a period of 10 years, the light transmitting properties of NOVALITE® Solid sheets will not decrease by more than 10% from their initial value when measured in accordance with the test method specified in ASTM D 1003 - 1998. This warranty applies from the date of original purchase and is valid only to the original purchaser of the product (claims must be accompanied by an original purchase receipt). The product must have been stored, installed and cleaned in accordance with the manufacturer's recommendations.

#### **Weather Breakage: 5 Year Warranty**

For a period of 5 years, NOVALITE® Solid sheets will not break or fracture as a result of the impact of hail measuring up to 15mm in diameter. Damage caused by the impact of objects other than hail is excluded from this warranty. It is responsibility of the purchaser to obtain the full warranty conditions. These are available from the distributor. Any claim must be submitted to the distributor.



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[www.novalite.in](http://www.novalite.in)

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