

POLYCARBONATE SHEETS

The ideal substitute for glass

Rowad
شركة الرواد الوطنية للبلاستيك المحدودة
Rowad National Plastic Co. Ltd.

Rowad polycarbonate sheet

Rowad's high performance engineering thermoplastic sheets are characterized by high clarity, heat and flame resistance, and exceptionally high impact strength over a wide temperature range and are suitable for a wide range of interior and exterior applications.



High value features

Virtually unbreakable with 250 times the impact strength of glass and 30 times that of acrylic sheet

Lighter than glass, approximately half the weight

Minimum of 50 microns of UV protection layers on both sides, enhancing weather resistance

Available in clear, bronze, green and blue; other colors and designs upon request

Multiple designed surface options, including plain, textured, new crystal and bamboo



Applications

Skylights, barrels and vaults

Domes and canopies

Swimming pool and stadium roofing

Doors, windows and gates

Light covers

Sound absorbing barriers

Bus stops, telephone booths and pedestrian bridge

Security shields

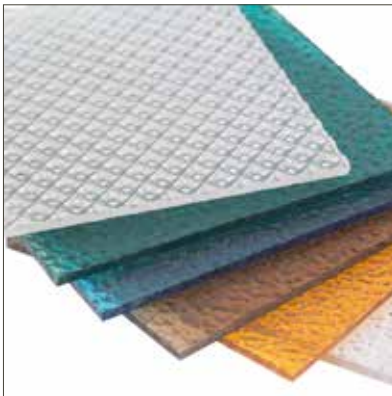
Greenhouses

Office solutions and partitioning

Insulation for electric panel boards

Fancy building architecture

Automobile components



Commitment to quality

Rowad National Plastics, an affiliate of Tasnee, is one of the leading plastic manufacturers in the field of specialized engineering plastic conversion. Over the last 20 years, we have forged a reputation by establishing an unwavering commitment to quality, flexibility and reliability in all of our products and services. We accomplish this by adopting best practices and working to the highest international standards.

Local production, global availability

Rowad pails are produced at our factory in Second Industrial City, Riyadh, Saudi Arabia. Local production capability enables us to reliably serve our customers in KSA and throughout the region.



Benefits



Improved insulation

With up to 25% better insulation than single pane glass, Rowad polycarbonate sheets provide good sound and heat insulation capability.



High structural strength and better handling

Due to its light weight, polycarbonate sheets require less structural support than glass and simplify handling and installation as well as reduce transportation cost.



Impact protection

Rowad's polycarbonate sheets are 100 times stronger than glass and many times stronger than acrylic. They exhibit excellent retention of impact strength and stiffness as elevated temperatures as well as subzero temperatures.



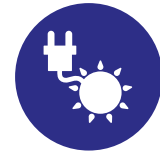
UV protection

Protected with a UV coating (50 microns on both sides) to give excellent durability for outdoor weathering, as well as resistance to the degrading effects of direct sunlight and other harmful UV sources, Rowad's polycarbonate sheets are suitable for harsh and hot climates like the desert.



Fire performance

Although polycarbonate sheets melt under intense heat or fire, they do not contribute to the growth of fire through flame spread. As a self-venting material, polycarbonate sheets will soften at relatively low temperatures, allowing fire, smoke and hot gases to escape.

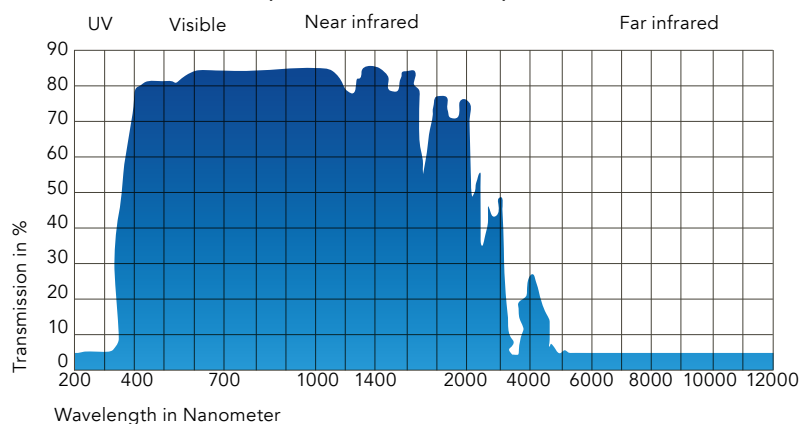


Light and energy transmission

By allowing the transmittance of up to 90% of solar energy and 88% visible light, clear polycarbonate is an excellent glazing material for a wide range of applications where clarity is essential. They are available in color tints that help control heat gain.



Light transmission spectrum of the clear panel



Specifications

	Typical properties	Units	Value	Test method
General	Density	Gm/cc	1.2	ASTM D 792
	Flammability	mm	1.48	UL 94
	Oxygen index	%	28	ASTM D 2863
	Water absorption	%	< 0.45	ASTM D 570
Mechanical	Tensile strength at yield	Mpa	60	ASTM D 638
	Tensile strength at break	Mpa	70	ASTM D 638
	Elongation at yield	%	6	ASTM D 638
	Elongation at break	%	125	ASTM D 638
	Tensile modulus	Mpa	2400	ASTM D 638
	Flexural strength	Mpa	100	ASTM D 790
	Taber abrasion	mg/1000 cycles	10	ASTM D 1044
	Charpy impact notched	Kj/m ²	40	ASTM D 256
	Izod impact notched	Kj/m ²	75	ASTM D 256A
	Impact resistant	Joules	72	ASTM F 736
Thermal	Vicat softening point	°C	148	ASTM D 1525
	Heat deflection temperature	°C	132	ASTM D 648
	Thermal index – electrical properties	°C	100	UL 7468
	Thermal index – mechanical properties	°C	120	UL 7468
	Coefficient of linear thermal expansion	m/m °C	70x10 ⁻³	ASTM D 696
	Shrinkage	%	< 3	BSEN ISO
Electrical/Optical	Volume resistivity	Ohm.cm	>1 E+15	ASTM D 257
	Dielectric strength	Kv/mm	30	ASTM D 149
	Dissipation factor 1 MHz	-	0.01	ASTM D 150
	Light transition	%	> 85	ASTM D 1003
	Haze	%	< 1	ASTM D 1003
	Refractive index	-	1.59	ASTM D 542

Dimensions

Size	Sheets	Rolls
Thickness	0.7 mm – 15 mm	
Standard width	1220 mm and 2050 mm	
Standard length	2440 mm – 3000 mm	

Rowad polycarbonate sheets store locations

Riyadh

Al Madinah Al Munawwarah Road
As Sinaiyah
011-2044123

Al Madinah Al Munawwarah Road
As Sinaiyah
011-4475375

Tarifa Street
Al Saada – Naseem

Dammam

Omar Ibn Abdulaziz Street
Al Khodariyah
013-8393009

Hasa

Makkah Road
Hasa Industrial City
013-5931673

Al Jubail

Al Madinah Al Munawwarah Road
Al Yarmoq

Jeddah

Al Makarunah Street
Al Rabwah
012-6592035

Buraydah

As Sinaah – Sinaiyat
Al Sulayem
016-3258546

Najran

King Abdulaziz Road
Dahbah
017-5433298

Abha

Industrial Area
05-03180264

Jazan

Industrial Area
017-3225156

Yanbu

Khalid Bin Alwalid
Al Rabwa
014-3919234

Tabuk

Sinaiyah
014-4252199

Sakaka

Old Sinaiyah
40 Street
014-6264934

Arar

King Khaled Road
Industrial Zone
014-661-1180

Contact

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