

KEQI®

Twinwall Polycarbonate Hollow Sheet

Technical Guide



Zhejiang Aoci Decoration Materials Co., Ltd.

This manual provides the basic information for working with KEQI Twin Wall Polycarbonate Hollow Sheets. We also supply Multiwall structure sheet, Honeycomb sheet, U-Shaped Lock roofing system, Solid sheet, Embossed sheet, ect.

Standard Products and Dimensions

Product	Structure	Thickness		Weight	Width	Length	Color
		(mm)	(in.)	(g/m ²)	(mm)	(mm)	
Twin Wall		4	5/32	900	2100	5800	Clear
		5	3/16	1100		6000	Bronze
		6	1/4	1300		11800	Opal
		8	5/16	1500		12000	Blue
		10	3/8	1700			Green

Tolerances: Thickness±5%, Length±3mm, Width±3mm

Technical Features

U.V.rays protection	50 micron	Test Method
Temperature range	-40℃~120℃	
Insulating values	3.1~3.8W/m ² K	GB/T 8484-1987
Sound insulation	14~19dB	GB/T 8485-1987
Linear thermal expansion	0.067mm/m℃	GBT8484-2002
Flame retardant	B-s1,d0,t0	GBT8624-2006

Benefits Of Twinwall Polycarbonate Hollow Sheet

ENERGY SAVING

Standardized procedures are used in the building and construction industry to determine the relative energy efficiency of most building products. Insulating values are typically stated in terms of U-value or R-value in the U.S.A., and K-value (the metric equivalent) everywhere else in the world. Where U-factor is concerned, a lower number indicates better energy efficiency.

Insulating Values

Product	Structure	Thickness		U-Value	Test Method
		(mm)	(in.)	(W/m ² K)	
Twin Wall		4	5/32	3.8	GB/T 8484-1987
		5	3/16	3.6	
		6	1/4	3.5	
		8	5/16	3.3	
		10	3/8	3.1	

Note: U-Value – The lower the number, the better insulator

LIGHTWEIGHT

1/6 the weight of glass and 1/3 the weight of acrylic.

As the sheet weight is very low, support structures need not be as heavy as in the case of traditional materials. This in turn offers savings in structure and installation costs.

LIGHT TRANSMISSION

Light transmission levels in excess of 80% can be achieved with clear and will be maintained throughout the life of the sheet.

Colors and Light Transmissions

Structure	Standard Colors					Test Method
	Clear	Bronze	Opal	Blue	Green	
Twin Wall 4mm	80%	42%	42%	35%	54%	GB2410-1980
Twin Wall 5mm	80%	38%	37%	29%	52%	
Twin Wall 6mm	80%	36%	30%	25%	48%	
Twin Wall 8mm	78%	30%	26%	16%	44%	
Twin Wall 10mm	77%	26%	22%	15%	42%	

Flexible and easy to install

Bends easily into arches. KEQI sheets may be cold bent or curved up to their minimum permitted radius, using polycarbonate's natural tolerance for cold forming with no need for thermal processing. Curving KEQI sheet beyond this minimum permitted radius induces undue stresses and strains in the glazing sheet, causing premature failure and will void the warranty.

Arching Radius

Structure	Thickness		Minimal Cold Bending Radius		
	(mm)	(in.)	(mm)	(feet)	(inch)
	4	5/32	700	2.30	28
	5	3/16	875	2.80	34
	6	1/4	1050	3.40	41
	8	5/16	1400	4.60	55
	10	3/8	1750	5.70	69

FIRE RESISTANCE

The fire performance of KEQI has been independently tested and certified up to Class B1 surface spread of flame when tested to GBT8624-2006, That is, at very high temperatures, the material would melt but flames would not spread.

10 YEAR WARRANTY

Refer to the KEQI warranty document for full details of the 10 year warranty.

SPECIAL OPTIONS

Double sided UV*

Ultra-violet protection is now available on both sides of KEQI, giving protection in situations where the underside of the sheet may be exposed to the sun.

Anti Drip*

KEQI, can be supplied with an anti-drip coating on the reverse of the sheet. It is suitable for any roof glazing application in which water droplets are unacceptable, such as commercial greenhouses where they could cause crop spoilage.

This innovative product has UV protection on the outer surface and a specially developed hydrophilic coating on the inner surface. This coating reduces the formation of condensation droplets by increasing the surface tension of the sheet and decreasing the contact angle. As a consequence, a thin mist of water will form on the inner surface of the sheet, which will not drip and will not affect the excellent light transmission of the material.

* Subject to minimum order quantities, contact sales office for full details.



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