Polycarbonate Performance

Product	Thickness	Color	Light Transmission (SHGC)	Structure	Rib Spacing	Weight (Lbs. per sq. ft.)	U-Value	R-Value	Bending Radius	SHGC	STC
Thermoclear 15	5/16" (8mm)	Clear	0.82	2-wall	25/64" (10mm)	0.348	0.57	1.75	55″	0.82	18
Thermoclear 15	5/16" (8mm)	Softlite	0.77	2-wall	25/64" (10mm)	0.348	0.57	1.75	55″	0.77	18
Thermoclear 15	1" (25mm)	Clear	0.69	3-wall	25/32" (20mm)	0.660	0.34	2.94	173″	0.69	23
Thermoclear 15	1" (25mm)	Softlite	0.67	3-wall	25/32" (20mm)	0.660	0.34	2.94	173″	0.67	23
CoverLite	1" (25mm)	Clear	0.71	3-wall	25/32" (20mm)	0.660	0.34	2.94	173″	0.71	23
CoverLite	1" (25mm)	Opal	0.51	3-wall	25/32" (20mm)	0.660	0.34	2.94	173″	0.51	23
CoverLite	1" (25mm)	Bronze	NA	3-wall	25/32" (20mm)	0.660	0.34	2.94	173″	NA	23
Thermoclear Plus	1" (25mm)	Clear	0.65	6-wall	25/32" (20mm)	0.700	0.27	3.70	173″	0.65	23
Thermoclear Plus	1" (25mm)	Opal	0.54	6-wall	25/32" (20mm)	0.700	0.27	3.70	173″	0.54	23
Thermoclear Plus	1" (25mm)	Bronze	0.42	6-wall	25/32" (20mm)	0.700	0.27	3.70	173″	0.42	23







U-VALUE - Measure of the ability of different structural components to conduct heat. The U-value of polycarbonate is measured by the number of BTUs that will pass through each square foot of area, per degree of temperature difference, from one side of the polycarbonate to the other. U-values indicate how well the polycarbonate will hold the heated or cooled air. The lower the U-value, the greater the polycarbonate's resistance to heat flow and the higher the insulating value. The U-value is the inverse of the R-value.

R-VALUE - Measure of resistance to heat gain or loss (insulative ability). R-values, rather than thicknesses, can be compared for different materials. The higher the R-value, the greater the polycarbonate's resistance to heat flow and the higher the insulating value. The R-value is the inverse of the U-value.

SOLAR HEAT GAIN COEFFICIENT (SHGC) - The fraction of solar radiation transmitted through polycarbonate expressed as a percentage. The lower a polycarbonate's SHGC, the less solar heat it transmits and the greater its shading ability. Generally, a lower SHGC is desirable in warm climates and a higher SHGC is desirable in cold climates. SHGC has replaced Shading Coefficient as the standard indicator of polycarbonate's shading ability.