

Sorea cast polymer's weight

Acrylic Weight		PETG Weight	
Thickness	Lbs. per. sq. ft	Thickness	Lbs. per. sq. ft
1/4" (.236")	1.46	1/4" (.236")	1.56
3/8" (.354")	2.19	3/8" (.354")	2.48
1/2" (.475")	1.92	1/2" (.475")	3.31
3/4" (.708")	4.38		
1" (.944")	5.84		

Co-efficiency

Acrylic expands and contracts nominally with change in temperature. Please allow for expansion/contraction when installing fasteners. Hardware, frame systems or when edge butting sheets. The Formula below can be used to calculate the appropriate allowance for expansion and contraction.

$$(\text{length in inches}) \times (\text{anticipated change in temperature}) \times (.00004) = \text{Expansion allowance}$$

Example: (48") x (31°) x (.00004) = 1/16"

Cold Bending

Sorea Cast polymers are not structural products and if manipulated and held into position for a long enough period of time they will eventually take on that shape. This process is known as "cold Bending". Enclosed is a guide showing the extent to which Sorea Cast polymers can be cold bent:

	Acrylic	PETG
Thickness	Bend Radius	Bend Radius
1/16"	21"	6"
1/8"	41"	12"
3/16"	69"	20"
1/4"	83"	24"
3/8"	124"	38"
1/2"	166"	48"
5/8"	207"	60"
3/4"	249"	71"
1"	331"	95"

Acrylic Cold Bending: based on 8' sheet

Frame Installation

When installing acrylic into frame systems it is important to use adequate frame depth to maintain the panel within the system. The recommended frame depth is based on sheet length.

Sheet length	Frame depth
24"	7/16"
36"	5/8"
48"	3/4"
60"	7/8"
72"	7/8"
84"	1"
96"	1 1/8"
108"	1 1/8"
120"	1 1/4"

For deflection values for horizontal frame installation please consult with JBGS' Seattle office for deflection values based on size and weight load requirements.