
INSTALLATION GUIDE

Understanding how to install Berman Resin products is an important aspect in helping clients. Berman Resin products are not structural products and deflection can occur if the products are not installed correctly. Following the information below will minimize installation issues in the field.

1. Resin Weights

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		

2. Resin Co-efficiency

Acrylic expands and contracts nominally with changes in temperature. Please allow for expansion/contraction when installing fasteners, hardware, frame systems or when edge butting sheets. The following formula can be used to calculate the appropriate allowance for expansion and contraction:

(length in inches) x (anticipated change in temperature) x (.00004) = Expansion allowance

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

To convert from Fahrenheit to Celsius:

- Subtract 32 from Fahrenheit #
- Divide answer by 9
- Multiply that answer by 5

3. Cold Bending

Resin materials are not structural 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". Here is a guide showing the extent to which resin can be cold bent:

	Acrylic	PETG
Thickness	Bend Radius	Bend Radius
1/4"	83"	24"
3/8"	124"	38"
1/2"	166"	48"
5/8"	207"	60"
3/4"	249"	71"
1"	331"	95"

Resin Cold Bending: based on 8' sheet

4. Stand-off placement for resin vertical wall installation

Suggested Stand-off placement for Joel Berman Resin products

The stand-off patterns below are suggested placements based on thickness and deflection.

For sizes not shown use the next largest size.

Things to consider when designing attachment points:

Top connections will bear the full weight of the panel

Side and bottom connections are present to prevent deflection and bowing

Thickness	Size of sheet (in feet)						
	2 x 2	3 x 3	4 x 4	3 x 6	4 x 6	2 x 8	4 x 8
1/2"							
3/8"							
1/4"							

5. Stand-off placement for resin horizontal ceiling installation

Suggested Stand-off placement for Joel Berman Resin products

The stand-off patterns below are suggested placements based on thickness and deflection.

The stand-off patterns below are based on deflection loads of the material only.

For sizes not shown use the next largest size.

Thickness	Size of sheet (in feet)						
	2 x 2	3 x 3	4 x 4	3 x 6	4 x 6	2 x 8	4 x 8
1/2"							
3/8"							