

 **Macrolux**<sup>®</sup>

---

**TRANSLUCENT POLYCARBONATE  
MULTIWALL PANEL SYSTEMS**

SKYLIGHTS, CANOPIES, WALKWAYS, WALL SYSTEMS & INTERIORS

## BDL POLYCARBONATE PANEL SYSTEMS



BDL® is a system of standing seam modular panels used to create vertical and sloped glazing. It is suited for a range of applications from curved skylights to interiors. Thanks to its wide variety of accessories, the system is complete, versatile, lightweight, and easy to install.

BDL® panel system is highly versatile and suitable for a wide range of daylighting applications such as:

- SKYLIGHTS • WALKWAYS • CANOPIES • WALL SYSTEMS • INTERIOR SYSTEMS •

### Advantages

BDL polycarbonate panel offers many advantages when compared with other glazing alternatives.



#### High impact resistance

200 times greater than glass



#### Lightweight

Less than 1 lb. per sq. ft.



#### Translucent

Controlled natural daylight



#### Easy to install

Complete system and accessories



#### Double sided U.V. protection

Either side may be exposed to the weather



#### Saves energy

Excellent thermal properties



#### Flame spread/smoke development

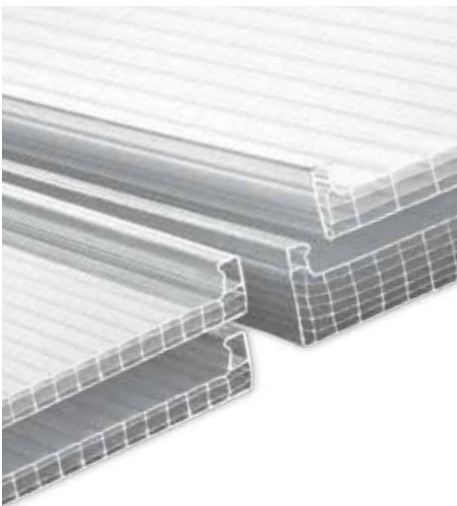
Excellent behavioral properties



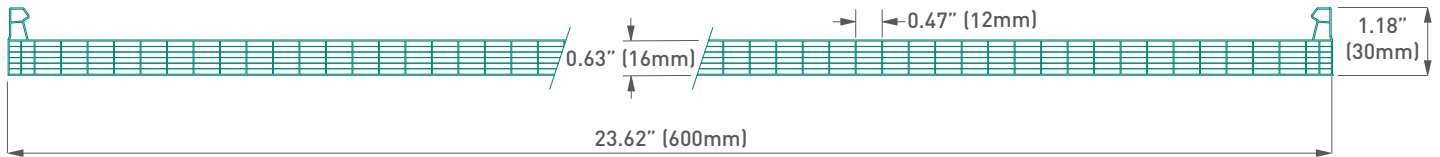
#### Highly Flexible

Cold forms to a 11' radius, heat formed even tighter

- Wide range of colors
- No adhesives required
- Clean aesthetics created by snap covers
- Thermal movement is captured internally within the system
- Unique panel construction
- Superior light diffusing properties
- High U.V. resistance on both sides



## Profile 16mm (7w)



### Technical Data

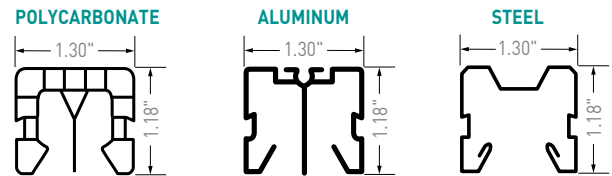
BDL 16 TECHNICAL DATA		
Sheet Thickness / # of walls	0.63" (16mm) / 7W	
Width	23.62" (600mm)	
Length	up to 39'	
Rib distance	0.47" (12mm)	
Panel weight	Std. 0.59 lbs/ft <sup>2</sup> or upon request 0.71 lbs/ft <sup>2</sup>	
UV Protection	By co-extrusion both sides	
Minimum cold bending	126" (3,200mm)	
Continuous use temperature	-40°F - 248°F	
Estimated sound reduction	19dB	
Thermal expansion coefficient	3.6 x 10 <sup>-5</sup> inch/ft°F	
Flammability certifications	Test	Classification
Smoke density	ASTM D2843	
Self ignition	ASTM D1929	
Burning extent	ASTM D635	CC1
Flammability / Smoke development	ASTM E84	Class 1 / Class A
Fire certification	B-s1, d0	Aproved
BDL System Acceptance		
MEA	New York City	
MEA	#180-02-M	
Colors available		
Clear, Opal, Athermic		
Warranty	<b>10 years against hail, yellowing, loss of light transmission</b>	

BDL 16 TECHNICAL DATA			
16mm PANELS	CLEAR	OPAL	ATHERMIC
Light transmission (%)	59%	37%	23%
Solar transmission (%)	66%	50%	34%
U-Value, Btu/ft <sup>2</sup> h°F	0.33	0.33	0.33
R-Value, (1/u) ft <sup>2</sup> h°F/Btu	3.03	3.03	3.03



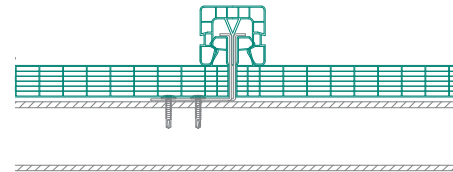
### Panel clips

Feature the Macrolux® USA "GRIPLOCK" Connection System, exceeds all OSHA fall through and point load requirements.

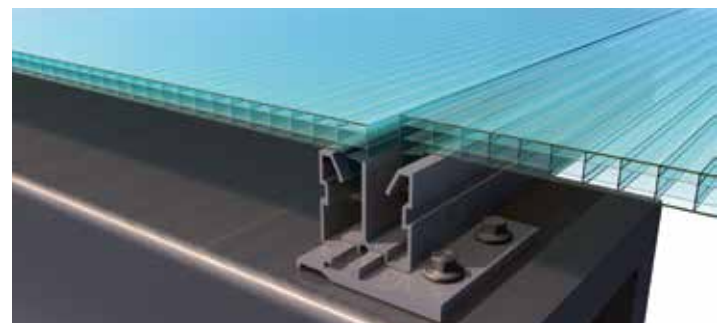
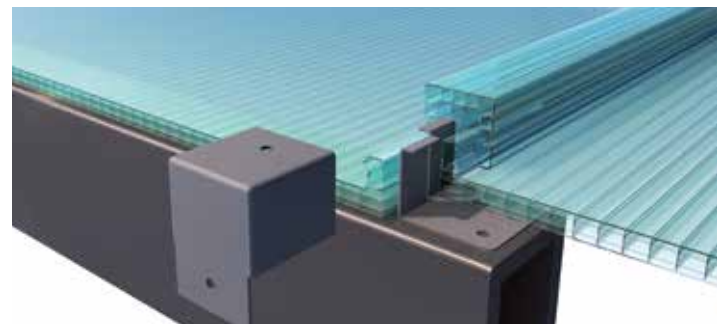
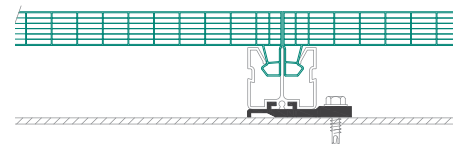


### Grip lock connectors

Section panels joining with polycarbonate snap-on profile.



Section panels joining with aluminum snap-on profile.



## MODULIT 500 LP WALL SYSTEMS



Modulit® is a polycarbonate system extruded in modular panels used for the production of translucent vertical and/or inclined walls. The system is made by means of panel coupling, provided by “male/female” joints for a perfect fit. Thereby the installation is fast and easy, even for the inexperienced in the use of modular systems. The range of accessories, consisting of outer profiles in anodized aluminum, hooks and gaskets, making the system complete, versatile and secure.

**Modulit 500 LP system is suitable for any vertical translucent glazing application such as:** • **CLERESTORY GLAZING** • **EXTERNAL TRANSLUCENT WALLS** • **INTERNAL TRANSLUCENT PARTITIONS** •

### Advantages



#### Impact resistance

Remains constant across a particularly wide temperature range.



#### Light transmission

Proper lighting design assures that the building interior receives the required amount of light.



#### Warranty

10-year warranty against yellowing, loss of light transmission and hail damage.



#### Fire behaviour

Modulit® panels are tested in independent qualified laboratories on the basis of current applicable regulations in the construction industry.



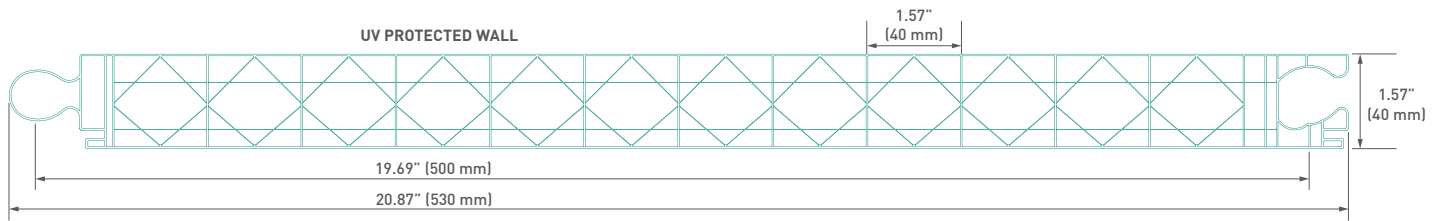
#### Low thermal transmittance value



#### U.V. protection



## Profile 40mm



## Technical Data

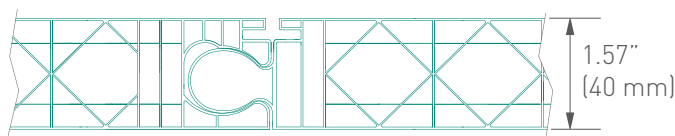
MODULIT 500 LP TECHNICAL DATA	
Sheet thickness / # of walls	1.57" (40 mm) / 6
Width	20.87" (530 mm)
Module width	19.69" (500 mm)
Rib distance	1.57" (40 mm)
Maximum length	39' or upon request
Thermal expansion coefficient	$3.6 \times 10^{-5}$ inch / ft°F
Continuous use temperature	-40°F - 248°F
Estimated Sound reduction	23 dB
UV Protection	Co-extruded on external side (both sides on request)
Fire certification	B-s1 d0

MODULIT 500 LP TECHNICAL DATA			
40mm PANELS	CLEAR	OPAL	BRONZE
Light transmission (%)	58%	37%	40%
Solar transmission (%)	66%	54%	45%
U-Value, Btu/ft²h°F	0.23	0.23	0.23
R-Value, (1/u) ft²h°F/Btu	4.35	4.35	4.35
<b>Warranty</b>	<b>10 years against hail, yellowing, loss of light transmission</b>		

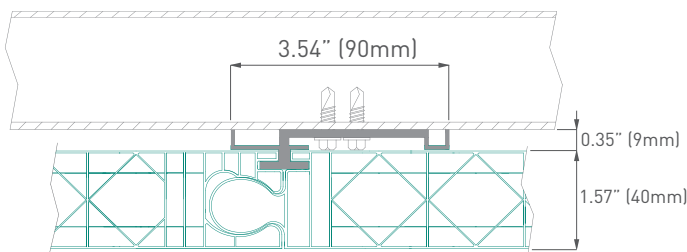
## Use of panel clips

If necessary, due to the glazing height or to the high load required, several intermediary supports must be installed and the fixing must be made with the aluminum clips.

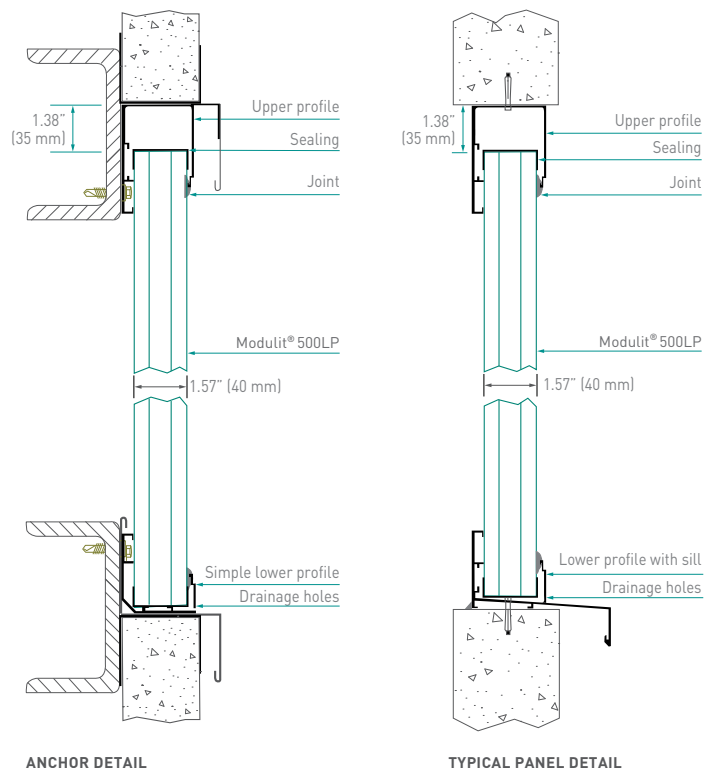
These clips allow a solid anchoring but do not prevent the thermal expansion of the polycarbonate panel.



section panel / panel joining



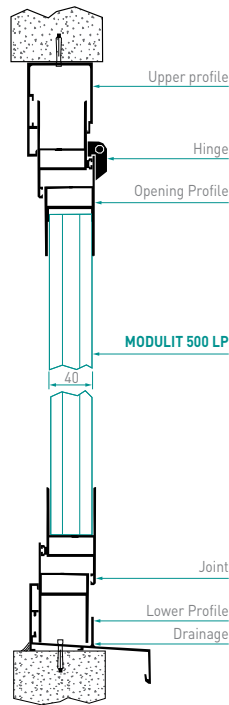
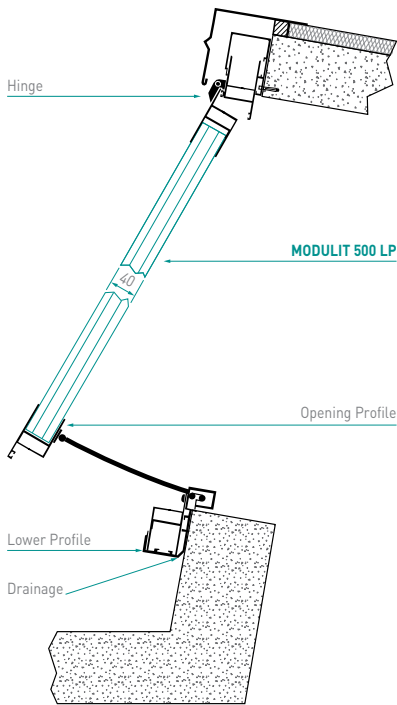
section panel / aluminum hook / panel joining



ANCHOR DETAIL

TYPICAL PANEL DETAIL

## Use of panel clips



## Interior Wall Systems

**Macrolux®** polycarbonate wall systems are ideal for use in vertical glazing for both interior and exterior use. When combined with colorful lighting effects, interior walls can become translucent panels that can change the mood of the room with a flick of a switch.

These effects can be translated into signage and trade-show exhibit booths, which are economical, lightweight, and easy to transport. They are becoming a popular material for use in museums and retail establishments where unique lighting effects and economy are desired.

An ideal clerestory material, our modular wall system is perfect for areas requiring natural daylight without harsh shadows. And, as with all of our fine products, our polycarbonate is co-extruded with U.V. protection to insure your interior colors resist fading.

Macrolux® is a leading producer of polycarbonate modular panel systems. Our staff is at your disposal to answer

any questions you may have concerning vertical, curved or pitched glazing. Our extensive range of quality sheet types and systems will suit most applications.

If you require custom solutions to a particular problem, our technical staff is here to support you, from planning to installation and all steps in between.



The data shown here is subject to change without notice at the discretion of Macrolux® USA. It is the sole responsibility of the customer to confirm with their own architect, engineer or other professional consultants that the goods offered for sale by Macrolux® USA meet the requirements and specifications of the particular project and use for which they are being purchased.

800.888.5364 | [info@macroluxusa.com](mailto:info@macroluxusa.com) | [www.macroluxusa.com](http://www.macroluxusa.com)  
2725 State Hwy 360, Suite 200, Grand Prairie, TX 75052