

Multiwall Polycarbonate

We are APC

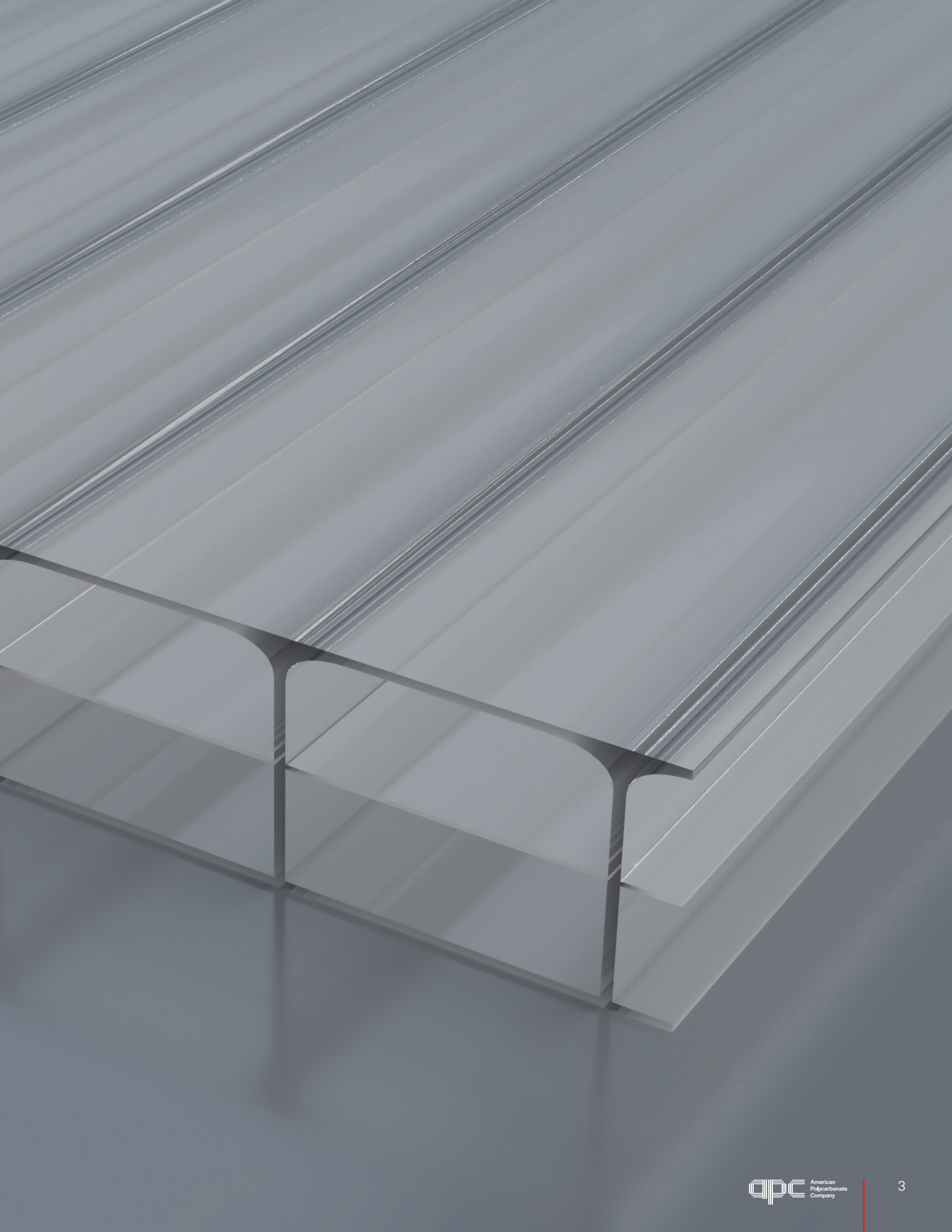
Our mission at APC is to serve the USA with the very best in Polycarbonate roofing and glazing materials. Manufactured here in the USA, we understand the unique needs of the American market.

Every functional detail in our dedicated extrusion and warehouse facility has been designed to maximise the efficiency of our service for polycarbonate multiwall and corrugated sheets.

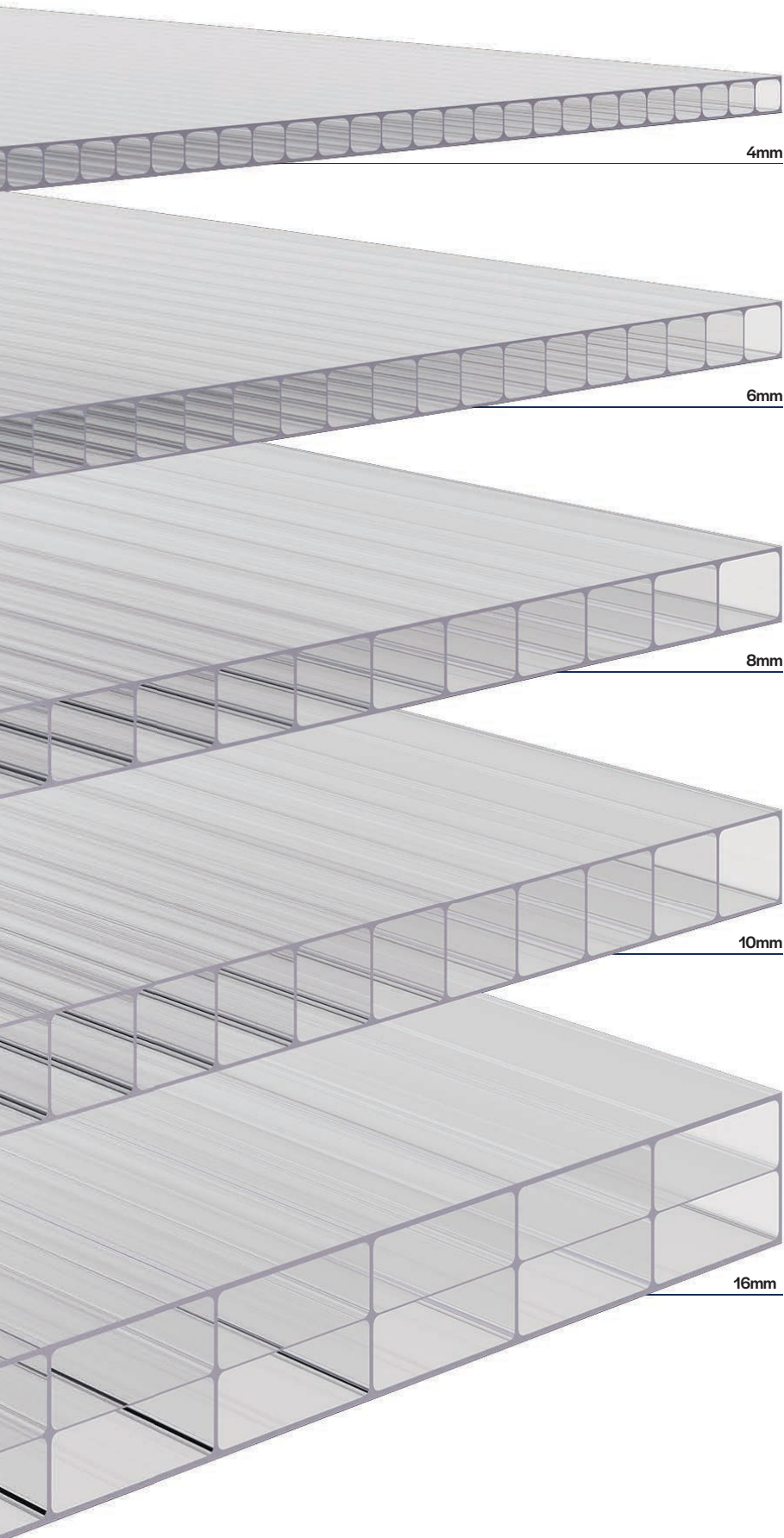
It's great to know that when you trust an APC product, you're backed by US certified performance testing and our expert team in Wisconsin, always ready to help you achieve your project's goals.

We're here to help.





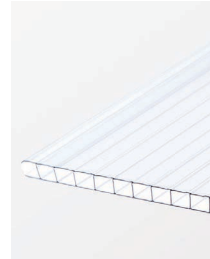
Multiwall Polycarbonate Range



Thicknesses
4mm – 25mm

Specials
2 Sides UV / Anti Condensate

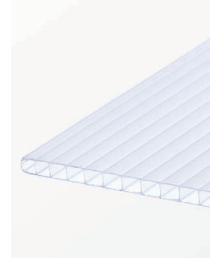
Standard Tints



Clear



Bronze

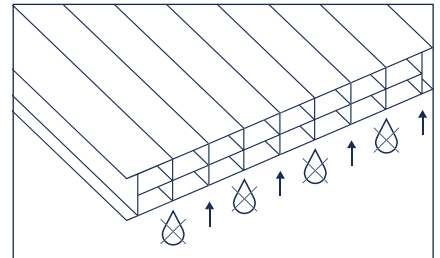


Diffused



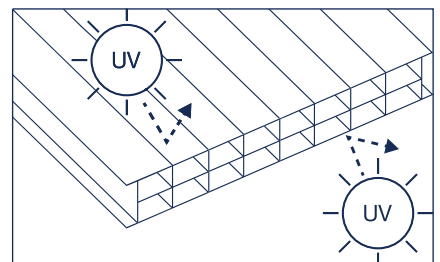
Opal

Anti Condensate



Optional anti-condensate coating reduces condensation and associated dripping.

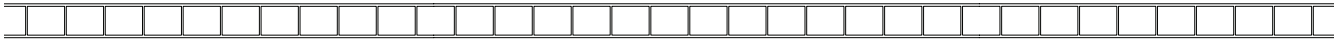
2 Sides UV



Optional 2 sides UV protection for applications in which both sides of the sheet may be exposed to UV rays.

Structures

Twinwall (Twin)
4mm Thickness



6mm Thickness



8mm Thickness



10mm Thickness



Triplewall (Triple)
Thickness 16mm



X Wall (X)
16mm Thickness



25mm Thickness



Products

MultiLite  **MULTIWALL POLYCARBONATE SHEETS**

AmeriLite **MW PRO**
MULTIWALL POLYCARBONATE SHEETS

AmeriLite **MW PRO 15**
MULTIWALL POLYCARBONATE SHEETS

ClearAisle **MW**
MULTIWALL POLYCARBONATE PANELS



Incredible Strength to Weight Ratio

Polycarbonate's strength to weight ratio makes it an ideal material for roofing and glazing applications and an excellent alternative to heavier building materials.

Features & Benefits



200 times stronger than glass at only a fraction of the weight



Excellent impact resistance



Superb glazing solution suitable for even the most extreme of climates



Rigid and self supporting allowing architectural spanning applications



Weight allows for architectural designs that could not be realised with heavier materials



Light weight for reduced transport energy and ease of handling



Long term durability means lower maintenance



Reduces the need for costly repairs



Outstanding Technical Performance

Polycarbonate offers a wide range of technical properties that make it an ideal solution in even the most challenging environments.

Features & Benefits



Service temperature up to 212°F - suitable for high temperature internal or external environments



Excellent fire performance with certification available from APC's Technical Department



Co-extruded UV protection layer filters out over 98% of UV rays for enhanced weatherability, preventing yellowing and loss of strength



Double sided UV protection option available for applications in which both sides of the sheet are exposed to the sun



UV protective glazing protects everything underneath from the damaging effects of the sun – people, livestock & plants



Limited warranty, contact our Technical Department for further details



The multiwall structure of Multiwall polycarbonate sheet provides a thermally insulating glazing solution. Achieve U-values as low as 0.28 Btu/(h•ft•°F)



Excellent Light Transmission

Polycarbonate's optical qualities make it ideal for applications requiring maximum daylight.

Features & Benefits



Natural daylight has been proven to promote health and wellbeing and improves mood



Natural daylight increases productivity and performance in schools, workplaces and sports facilities



Range of tints offering differing levels of light transmission and light diffusion to meet the designer's requirements



Achieves light transmission in excess of 80%



Reduced need for artificial light cuts building energy costs

Applications

Construction & Architecture



High light transmission combined with thermal insulation from the multiwall structure makes multiwall polycarbonate an ideal material for rooflights and vertical glazing.

Natural light and U-values as low as 0.28 Btu/(h·ft·°F) contribute to a more energy efficient building whilst the attractive appearance of the sheet enhances design capabilities for a stunning architectural feature.

Rooflights

Vertical Glazing

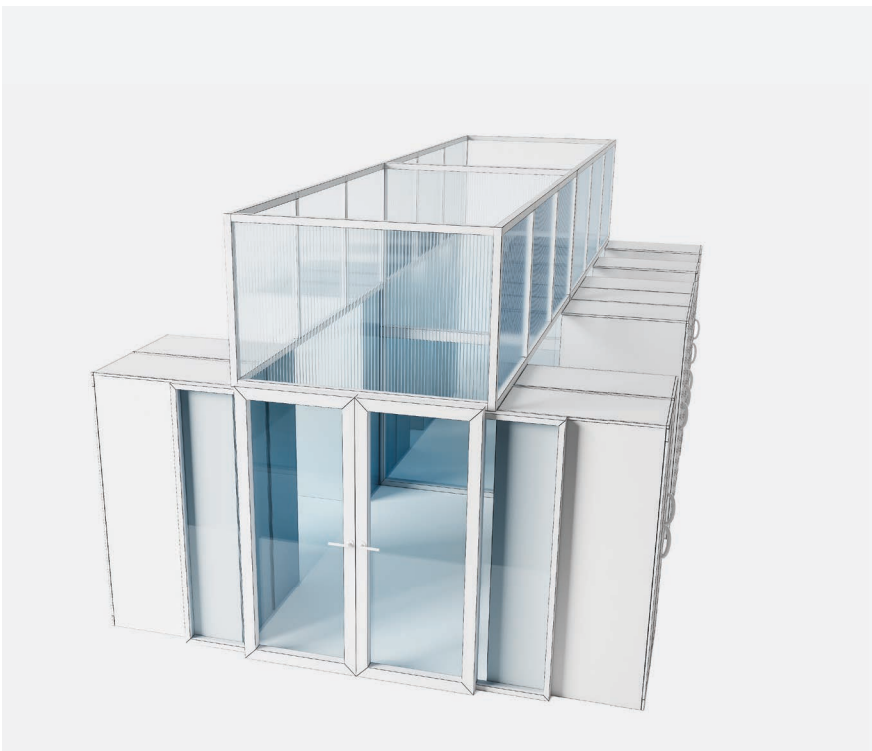
Facades

Rainscreens

Canopies

Walkways

Aisle Containment



Multiwall polycarbonate is the ideal glazing solution for aisle containment systems, panels, doors and protective barriers in data centers. The multiwall structure provides thermally insulating air pockets which aids temperature control and airflow management.

It is light in weight yet resistant to impact damage providing protection for the equipment while allowing access for maintenance. Multiwall polycarbonate has certified fire performance for safety compliance and the sheet is durable with a long service life.

Aisle Containment

Panels

Doors

Protective Barriers

Horticulture & Agriculture



Multiwall polycarbonate lightweight yet robust and durable glazing sheets are easy to install and reduce the need for frequent costly repairs. The range of light transmitting and solar controlling tints provides maximum daylight for growing crops or controlled natural light for creating a comfortable environment for livestock.

Natural light reduces the need for artificial lighting. The co-extruded UV protection layer, which blocks over 98% of harmful UV rays, prolongs the life of the glazing sheet and protects the livestock and plants from the harmful effects of the sun.

Commercial Greenhouses

Garden Centers

Domestic Greenhouses

Cow Sheds

Milking Parlours

Barns

Residential



Multiwall polycarbonate is light in weight, easy to handle and easy to install with standard DIY tools making it the ideal solution for home improvement projects around the house and garden.

Choose from a wide range of products suitable for DIYer's planning simple projects such as greenhouse glazing replacement, shed windows and gazebos to tradesmen undertaking more complex projects such as carports, sun canopies and conservatories.

Hobby Greenhouses

Sun Rooms

Swimming Pool Covers

Lean-to Extensions

Pergolas

Sun Screens



MultiLite

MULTIWALL POLYCARBONATE SHEETS

Reliable, durable and easy to install

MultiLite multiwall polycarbonate sheets from APC are economical, light in weight, and provide a versatile option for a variety of indoor and outdoor glazing projects.

Stocked in a wide range of sheet thicknesses and tint options, MultiLite sheets are 200 times stronger than glass at a fraction of the weight. The ideal glazing solution for a range of applications from large scale commercial projects to hobby greenhouses.

Applications

- Greenhouses
- Canopies
- Covered Walkways
- Pool Enclosures
- Sliding Doors
- Room Dividers
- Sunrooms
- Secondary Glazing

Features & Benefits

- High Light Transmission
- Virtually Unbreakable
- UV Resistant Surface
- Excellent Thermal Insulation
- Easily Fabricated On-Site
- Withstand a Wide Range of Temperatures

Product Range

Sheet Width
4' Wide

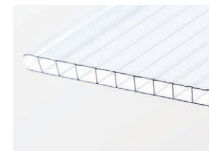
Sheet Length
Up to 8'

Sheet Thickness
6mm & 16mm

Structure Type
Twin Wall, Triple Wall

Warranty
10-Year Pro-rated Warranty

Color & Tints



Clear



Diffused





AmeriLite^{MW PRO}

MULTIWALL POLYCARBONATE SHEETS

High performance, versatile & technically superior glazing.

AmeriLite MW PRO is a high-quality multiwall glazing sheet manufactured from APC's premium polycarbonate providing superior mechanical, optical, and thermal properties.

This lightweight, high-performance sheet offers high light transmission, exceptional impact strength, and long-term weather resistance. In addition, the sheet's multiwall construction provides outstanding thermal insulation.

Applications

- Walkways
- Canopies
- Wall Partitions
- Data Centers
- Industrial Roofing
- Domes
- Sunrooms
- Greenhouses
- Pool Enclosure

Features & Benefits

- Advanced UV Protection
- High Light Transmission
- Outstanding Impact Strength
- Excellent Thermal Insulation
- Good Fire Performance
- Easily Fabricated On-Site
- 10 Year Limited Warranty

Product Range

Sheet Width
4' Wide & 6' Wide

Sheet Length
Up to 48'

Sheet Thickness
6mm, 8mm, 10mm, 16mm, 25mm

Structure Type
Twin Wall, Triple Wall

Warranty
10-Year Pro-rated Warranty

Color & Tints



Clear



Diffused



Bronze



Opal

Special Options

Anti-condensate, two sides UV





AmeriLite MW PRO 15

MULTIWALL POLYCARBONATE SHEETS

Advanced multiwall polycarbonate glazing with enhanced weatherability

AmeriLite MW PRO15 is APC's most advanced range of multiwall polycarbonate glazing with enhanced UV protection to extend the life of the sheet which retains clarity, impact strength, stiffness and long-term light transmission.

Available in clear for maximum light transmission or Diffused for a softer light transmission, ideal for minimizing shadows, glare and hotspots.

Applications

- Commercial Greenhouses
- Hobby Greenhouse
- Retail Garden Centers
- Agricultural Nurseries
- Vertical Farms
- Pool Enclosures
- Conservatories
- Aquaculture Growing
- Patio & Deck Covers
- Skylights & Sidelites

Features & Benefits

- High Light Transmission
- Virtually No Yellowing
- 100% Light Diffusion Feature
- Excellent Thermal Properties
- Outstanding Impact Performance
- Anti-Condensate Coating
- Top Fire Ratings
- 15 year Limited Warranty

Product Range

Sheet Width
4' Wide & 6' Wide

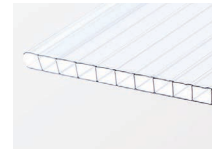
Sheet Length
Up to 48'

Sheet Thickness
8mm & 16mm

Structure Type
Twin Wall, Triple Wall

Warranty
15-Year Limited Warranty

Color & Tints



Clear



Diffused

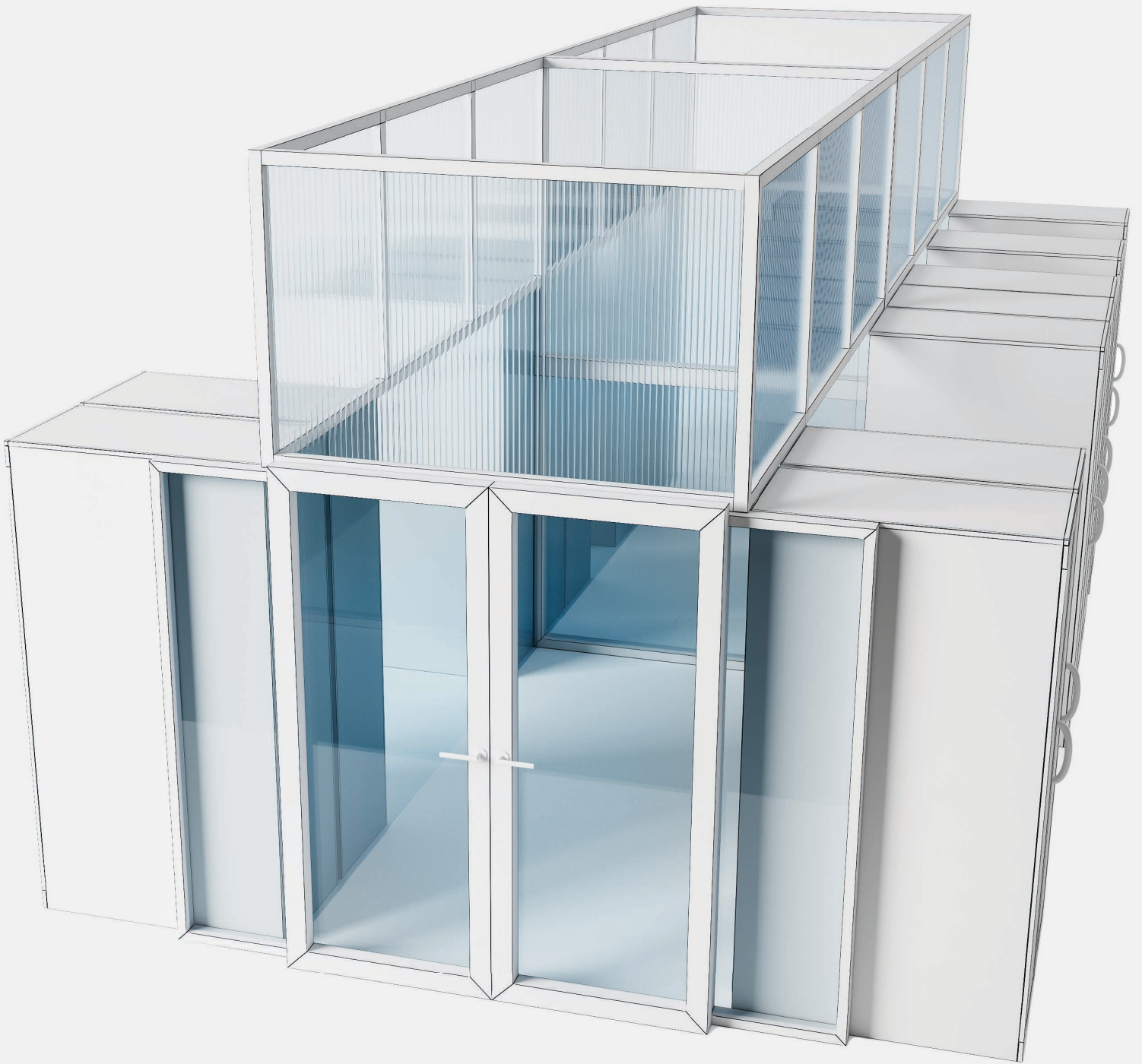
Diffused

High light transmission with complete light diffusion, Diffused minimises shadows and glare.

Special Options

Anti-condensate, two sides UV





ClearAisle^{MW}

MULTIWALL POLYCARBONATE PANELS

Multiwall polycarbonate glazing for aisle containment in Data Centers

ClearAisle is APC's range of multiwall polycarbonate glazing for aisle containment, panels, doors and protective barriers in Data Centers.

Produced in optimal sizes and gauges for Data Centers, ClearAisle is cut on-line for a fully customized and ready to install solution.

Light in weight, durable and impact resistance, ClearAisle has excellent fire performance and is manufactured right here in the USA.

Applications

- Data Center Glazing
- Hot Aisle Containment
- Cold Aisle Containment
- Panels
- Doors
- Protective Barriers

Features & Benefits

- Minimizes Heat Transfer
- Preserves Hot & Cold Aisle Integrity
- Durable & Impact Resistant
- On-Line Cutting For Customization
- Optimal Sizes & Gauges For Data Centers
- Clean Flutes
- Excellent Fire Performance
- Safety Stock for Expedited Lead Times (Delivered in 3-5 Days)

Product Range

Sheet Width
4' Wide & 6' Wide

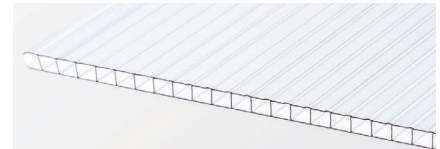
Sheet Length
Up to 48'

Sheet Thickness
4mm, 6mm, 8mm, 10mm & 16mm

Structure Type
Twin Wall, Triple Wall

Warranty
10-Year Limited Warranty

Color & Tints



Clear

Also Available



Polycarbonate

Mechanical Properties



Strength & Damage Resistance

Damage to glazing can be hazardous and expensive but our multiwall polycarbonate sheets offer excellent protection against hailstones, vandalism and accidental damage with an impact resistance up to 200 times greater than glass. This characteristic is maintained over a broad temperature range and prolonged service life.

The Multiwall polycarbonate sheets will retain their physical properties in extreme weather conditions making them the ideal glazing solution for projects throughout the world.

Multiwall polycarbonate can withstand temperature extremes from -40°F to 212°F (-20°C to 100°C) long term and up to 130°C short term. No other glazing material can offer this combination of impact resistance and wide working temperature range.



UV Protection

Our Multiwall polycarbonate sheets are co-extruded with a UV absorption layer. This protective layer prevents damaging UV radiation from penetrating the sheet for long term optical clarity and mechanical strength.



Chemical Resistance

Polycarbonate has good resistance to many chemicals (with the exception of solvents and strong alkalis) so is often suitable for use in aggressive environments.



Fire Performance

Our Multiwall polycarbonate sheets exhibit excellent fire performance and in the event of a fire will soften and open, allowing smoke, heat and gases produced by the fire to escape. This ‘venting’ property means that damage within buildings can be limited. For details of fire ratings please contact our Technical department.



Warranty

Multiwall polycarbonate sheets are manufactured under Quality Management Systems registered to BS EN ISO 9001:2015. The sheets carry limited warranty. For full warranty details please contact our Technical department.



Testing

Multiwall polycarbonate sheets are designed and tested to the relevant industry standards and performance criteria. For further information please contact our Technical department.

Properties		Test Method	Value	Units
Mechanical	Tensile strength at yield	DIN 53455	>8702	psi
	Tensile strength at break	DIN 53455	>10152	psi
	Modulus of elasticity	DIN 53457	>333587	psi
Physical	Specific gravity	DIN 53479	0.0012	oz/ft ³
Thermal	Softening temperature - Vicat ‘B’	DIN 53460	293 - 302	°F
	Linear thermal expansion	DIN 53752	3.722	ft/ft°F
	Maximum service temperature	permanent 100°C	212	°F
	- no loading	short term 130°C	266	°F

Polycarbonate General Guidelines

Accessories

It is recommended that the ends of the Multiwall polycarbonate sheets are sealed to minimise the build-up of moisture or dust contamination within the channels.

A sealing tape, preferably aluminium, is applied at the top of the sheet to prevent ingress of moisture, dust and insects. A vent tape applied to the bottom end of the sheet permits air to move freely in and out of the sheet, helping minimise condensation.

Thermal Expansion

In practical terms it is necessary to allow 0.125" (nominal) per 3ft between the top edge of the panel and the glazing profile.

Cleaning

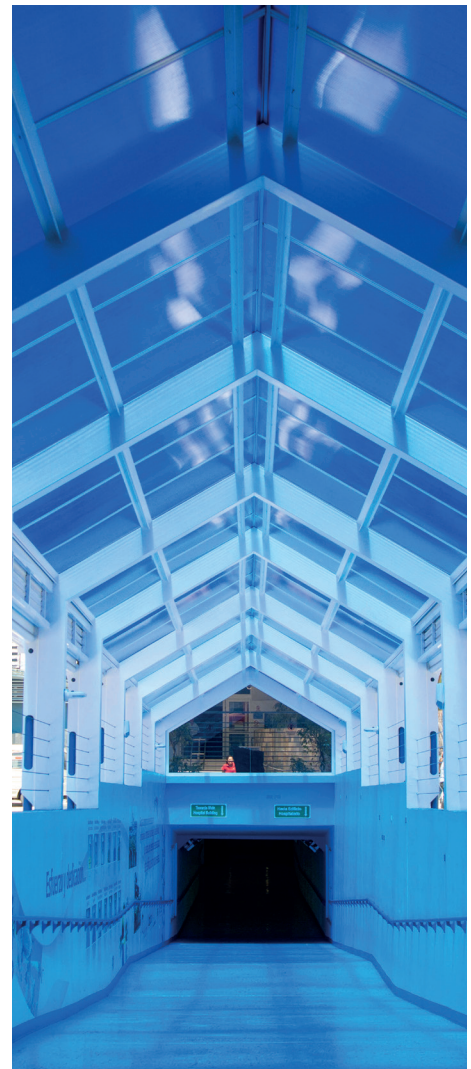
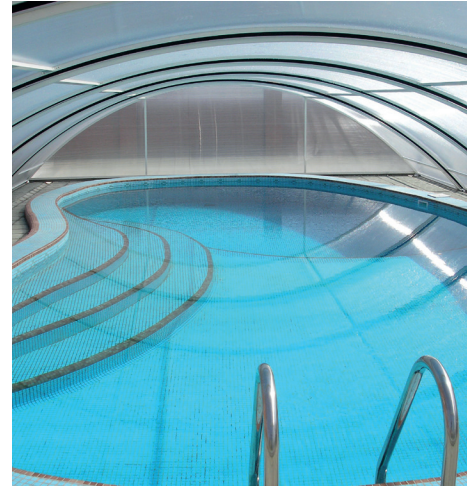
As a condition of ensuring that Multiwall polycarbonate sheets perform at optimum throughout their service life, it is recommended that the sheets be cleaned periodically using suitable household cleaning agents as follows:

- Use lukewarm water to rinse the sheet and soften dirt.
- Make up a solution of lukewarm water and ordinary household cleaner or a mild soap and use this to wash the sheet.
- A sponge or soft cloth should then be used to gently remove dirt and grime.
- The cleaning process should then be repeated and the sheet rinsed and dried with a soft cloth.
- For larger areas clean the surface with a high-pressure water cleaner.

Warning

Care should be taken to observe the following precautions:

1. Do not scrub Multiwall polycarbonate sheet with brushes or sharp objects.
2. Avoid any abrasives or cleaners of a highly alkaline composition.
3. It is generally advisable in all instances to test any cleaner on a sample piece of the Multiwall polycarbonate sheet first and it should also be remembered that cleaners and solvents which state that they are suitable for cleaning polycarbonate may not be safe for use on the UV protective surface of the sheet.





American
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Company

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