



Polycarbonate Twinwall

UV-Resistant Virtually Unbreakable Multiwall Polycarbonate

Description and Overview

Polycarbonate twinwall is a virtually unbreakable multi-paneled polycarbonate sheet with excellent impact resistance and thermal insulation properties. Twinwall panels feature high light transmission and clarity. They are UV resistant to protect against UV degradation over time and can handle extreme weather conditions.

Polycarbonate twinwall's hollow fluted channels trap air between the panels to increase its insulation strength, which allows data centers to utilize twinwall in hot and cold aisle containment systems. Twinwall can operate in temperatures ranging from -40°F to 280°F and is flame retardant. It can be easily machined, cut, drilled, trimmed, cold formed, and bonded.

Applications and Uses

Polycarbonate twinwall's excellent durability, insulation properties, clarity, and resistance to UV rays and impacts make it a fantastic material for roofing, glazing, greenhouses, data centers, architectural design, storm window and roofing protection, and more.

- Outdoor roofing
- Glazing
- Greenhouse panels
- Data center containment systems
- Data center enclosures
- Data center shelving
- Turtle-shell and umbrella protective covers
- Storm window and roofing protection
- Architectural design



Polycarbonate twinwall is available in clear, ice (opal), bronze, red, green, blue, and yellow colors. Multiple sheet sizes available up to 72" x 288" Thicknesses: .236", .315", .394", .630"

Properties and Specifications

Property	Polycarbonate Twinwall
Specific Gravity	1.2 g/cc
Density	75 lb/ft. ³
Tensile Strength @ yield	8,700 psi
Tensile Modulus	346 ksi
Flexural Strength	13,500 psi
Flexural Modulus	345 ksi
Elongation @ break	155%
Izod Impact Strength	15 ft-lb/in.
Hardness, Rockwell	R125
Heat Deflection Temperature	~266°F
Vicat Softening Temperature	300°F
Linear Expansion Coefficient	3.6 x 10 ⁻⁵ /°F
Affixable Properties	Chem / Mech

Properties are typical. Chem is an abbreviation for chemically affixed with glues, chemicals, or adhesive. Mech is an abbreviation for mechanically affixed bonding. Field testing is recommended for any application.

