



Description: Made from FDA approved materials. UL rated. Clear as glass. High tensile strength over wide temperature range. High impact strength—even at low temperatures. Excellent high temperature resistance. Flame-resistant. Self-extinguishing. Can be machined, drilled, cut and sawed. Easily joined with solvents or adhesives.

Physical Properties:

<i>Property</i>	<i>ASTM Method</i>	<i>Excelon PC</i>
Specific Gravity	D 792	1.20
Refractive index at 25°C	—	1.586
Rockwell Hardness	D 785	Scale M 73-78 Scale R 112-125
Abrasion resistance, Taber abraser with CS-17 wheel	D 1044	10 mg/1000 cycles
Impact strength, notched izod, 1/8" specimen, ft-lb/in of notched	D 256	15-17
Impact strength, unnotched izod, 1/8" specimen, ft-lb/in	D 256	>60
Tensile-impact, ft.-lbs/in ²	D 1822	250
Tensile-yield strength, psi	D 638	7,000-9,000
Tensile-ultimate strength, psi	D 638	9,000-11,500
Tensile-modulus, psi	D 638	300,000-345,000
Elongation	D 638	100-130
Compressive strength, psi	D 695	12,500
Compressive modulus, psi	D 695	345,000
Flexural strength, psi	D 790	12,000-12,700
Flexural modulus, psi	D 695	320,000-350,000
Shear-yield strength, psi	D 732	6,000
Shear-ultimate strength, psi	D 732	10,000
Light transmission (1/8 inch thick disc)	—	88-90%
Water-vapor permeability cm ² /STP/mm/sec/cm ² /cm HG	—	14.0 x 10 ¹³
Modulus of rigidity, psi	—	116,000
Deformation under load, 4,0000 psi 77°F	D 621	0.2%
158°F		0.3%
Water absorption, 24 hour submersion	D 570	0.15%
equilibrium 73°F		0.35%

For the clarity of glass and the impact resistance of metal, specify Excelon™ PC tubing. Excelon PC provides extraordinary design and fabrication opportunities. Excelon PC can be ordered from stock in 1/4" - 5 3/4" I.D., in 8 ft. lengths. Custom orders are also available in sizes up to 8" O.D. and in a variety of wall thicknesses. Specific formulations are available for tints and colors with performance additives for ultraviolet stabilization, flame retardant (94VO) and radiation resistance.

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