Skyon
Polycarbonate Awnings

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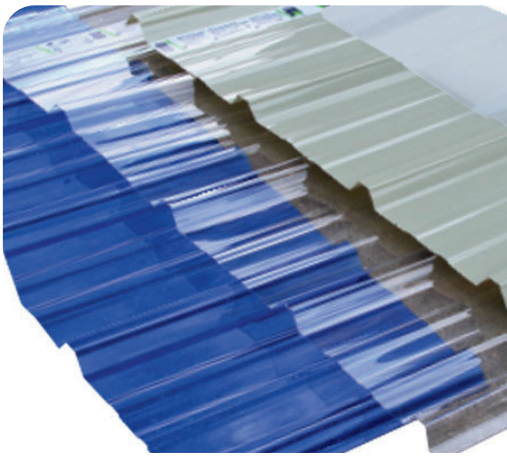
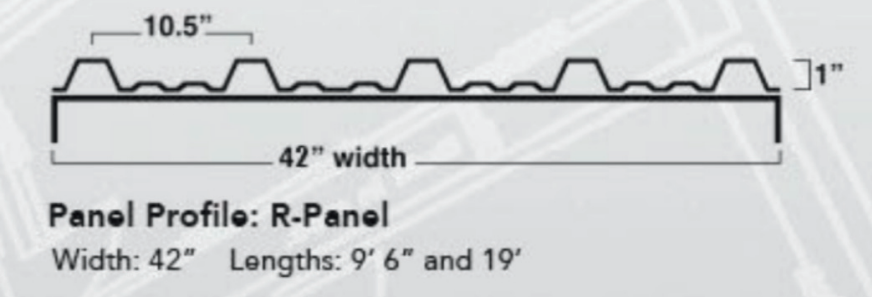


POLYCARBONATE R-PANEL SHEETING

Advantages:

- Virtually unbreakable
- Impact resistant
- Up to 90% light transmission
- Weather & UV resistant
- Lightweight
- Easy to install



Panel Profile: R-Panel
Width: 42" Lengths: 9' 6" and 19'

Color Options:
White Diffuser, Blue, Green & Clear

Typical Applications

- Architectural Structures
- Industrial Facilities
- Public Buildings
- Skylights, Canopies & Awnings
- Storage Sheds
- Swimming Pool Enclosures
- Partitions
- Walkway & Sidewalk Covers
- Porches, Patios, Verandas, Gazebos or Pergolas
- Carports, Garages & Parking Shelters
- Sun Rooms
- Greenhouses

POLYCARBONATE R-PANEL SHEETING

Properties

Property	Conditions (U.S. Customary)	ASTM Method	Units - SI (U.S. Customary)	Value (U.S. Customary)
Physical				
Density		D-1505	g/cm^3 (lb/ft^3)	1.2 (75)
Water Absorption	24 hr. @ 23°C	D-570	%	0.15
Mechanical				
Tensile strength at yield	10 mm/min (0.4 in./min)	D-638	MPa (psi)	62 (9,000)
Tensile strength at break	10 mm/min (0.4 in./min)	D-638	MPa (psi)	65 (9,500)
Elongation at yield	10 mm/min (0.4 in./min)	D-638	%	6
Elongation at break	10 mm/min (0.4 in./min)	D-638	%	110
Tensile Modulus of Elasticity	10 mm/min (0.4 in. /min)	D-638	MPa (psi)	2,378 (345,000)
Flexural Modulus	1.3 mm/min (0.05 in./min)	D-790	MPa (psi)	2,378 (345,000)
Flexural Strength at Yield	1.3 mm/min (0.05 in./min)	D-790	MPa (psi)	93 (13,500)
Notch Impact Strength Izod	23°C (73°F)	D-256	J/m (ft·lbf/in.)	800 (15)
Notch Impact Strength Charpy	23°C (73°F)	D-256	J/m (ft·lbf/in)	800 (15)
Impact Falling Weight	3 mm (0.12 in.) Sheet	ISO-6603/1b	J (ft·lbf)	158 (117)
Rockwell Hardness		D-785	R scale / M scale	125 / 70
Thermal				
Long Term Service Temperature			°C (°F)	-75 to +100 (-175 to +212)
Short Term Service Temperature			°C (°F)	-75 to +120 (-175 to +250)
Heat Deflection Temperature	Load: 1.82 Mpa (264 psi)	D-648	°C (°F)	132 (270)
Vicat Softening Temperature	Load: 1 kg (2.2 lb)	D-1525	°C (°F)	150 (300)
Coefficient of Linear Thermal Expansion		D-696	10^{-5}/°C (10^{-5}/°F)	6.5 (3.6)
Thermal Conductivity		C-177	W/m°K (Btu-in./hr-ft^2-°F)	0.21 (1.46)
Specific Heat Capacity		C-351	kJ/kg°K (Btu/lb°F)	1.26 (0.31)
Optical				
Haze	.8 mm (0.03 in.) Clear Sheet	D-1003	%	<1
Light Transmission	.8 mm (0.03 in.) Clear Sheet	D-1003	%	90
Refractive Index	Clear Sheet	D-542		1.59
Yellowness Index	.8 mm (0.03 in.) Clear Sheet	D-1925		<1
Electrical				
Dielectric Constant	50 Hz	D-150		3
	1 MHz	D-150		2.9
Dissipation Factor	50 Hz	D-150		0.9
	1 MHz	D-150		11
Dielectric Strength Short Time	500 V/s	D-149	kV/mm (V/mil)	>30 (>770)
Surface Resistance	Ketley	D-257	Ohm	5.1x10^{15}
Volume Resistance	Ketley	D-257	Ohm-cm	1.3x10^{17}

Regulatory Code Compliance Certification

Organization	Standard	Classification
NRC-CNRC	Canadian NBC 2010 (Canopy Covering)	CCMC Evaluation Report 13450-R
Miami Dade County	FBC 2010 (Canopy Covering)	NOA# 12-0110.03
ICC (International Code Council)	IBC 2006 (Light Transmitting Plastics)	ESR-1893
City of Los Angeles	LABC 2011 (Light Transmitting Plastics)	RR 25298

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General Polycarbonate Cleaning Guidelines

Avoid contact with chemicals, paints, adhesives or other synthetic materials that are incompatible with polycarbonate. Never use glass cleaners with ammonia, or ammonia based products. Clean with lukewarm soapy solution using a soft cloth or sponge. Do not use abrasive brushes as these will mark the surface.