

Product Data Sheet  
Abrasion and UV Resistant Sheet

Monogal-AR, 2UV-resistant, hard coated polycarbonate substrate. Monogal-AR is designed to provide excellent UV and scratch resistance, so it can be used in exterior applications.

Property	Test Method	Units	Values
<b>Physical</b>			
Specific Gravity	ASTM D792	N/A	1.2
Light Transmission, Clear @ 0.118"	ASTM D1003	%	87
Water Absorption, 24 Hours @ 73 °F	ASTM D570	%	0.15
Chemical Resistance	ASTM D1308	N/A	Pass
Taber Abrasion @ 100 cycles, Delta Haze <i>CS-10F Wheels, 500 g Weight</i>	ASTM D1044	%	<5
<b>Mechanical</b>			
Tensile Strength, Ultimate	ASTM D638	psi	9,500
Tensile Strength, Yield	ASTM D638	psi	9,000
Tensile Modulus	ASTM D638	psi	340,000
Elongation	ASTM D638	%	110
Flexural Strength	ASTM D790	psi	13,500
Flexural Modulus	ASTM D790	psi	345,000
Compressive Strength	ASTM D695	psi	12,500
Izod Impact Strength, Notched @ 0.125"	ASTM D256	ft. lbs/in	16
<b>Thermal</b>			
Heat Deflection Temperature @ 264 psi	ASTM D648	°F	270
Coefficient of Thermal Expansion	ASTM D696	in/in/ °F	3.75x10-5
Coefficient of Thermal Conductivity	ASTM C177	BTU.in/hr.ft <sup>2</sup> .°F	1.35
Shading Coefficient, Clear @ 0.236"	NFRC 100-2010	N/A	0.97
U factor @ 0.236" (summer/winter)	NFRC 100-2010	BTU/hr.ft <sup>2</sup> .°F	0.85/0.92
<b>Flammability</b>			
Horizontal Burn, AEB	ASTM D635	in	<1
UL 94 Rating of base substrate @ 0.060"	UL94	N/A	HB
UL 94 Rating of base substrate @ 0.236"	UL94	N/A	HB
<b>UV Stability</b>			
Xenon Arc Simulated Weathering	ANSI Z26.1	N/A	Pass