

Product Data Sheet
Abrasion and UV Resistant Sheet

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

Property	Test Method	Units	Values
Physical			
Specific Gravity	ASTM D792	N/A	1.2
Light Transmission, Clear @ 0.18"	ASTM D1003	%	97
Water Absorption, 24 Hours @ 73 °F	ASTM D570	%	0.15
Chemical Resistance	ASTM D1308	N/A	Pass
Label Abrasion @ 100 cycles, Delta-Haze @ 10H wheels, 500 g weight	ASTM D1044	%	<5
Mechanical			
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
Charpy Impact Strength, Notched @ 0.125"	ASTM D256	ft lbs/in	10
Thermal			
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 E177	BTU in/hr.ft ² .°F	1.35
Shading Coefficient, Clear @ 0.230"	NFRC 100-2010	N/A	0.57
U factor @ 0.230" (summer/winter)	NFRC 100-2010	BTU/hr.ft ² .°F	0.65/0.92
Flammability			
Horizontal Burn, AEB	ASTM D635	r	<1
JL 54 Rating of base substrate @ 0.060"	JL54	N/A	HB
JL 54 Rating of base substrate @ 0.230"	JL54	N/A	HB
UV Stability			
Xenon Arc Simulated Weathering	ANSI Z39.7	N/A	Pass