PROPERTIES OF RowTec™ POLYCARBONATE

PROPERTY	TEST METHOD	UNITS	TYPICAL VALUES
PHYSICAL			
Specific Gravity	D-792		1.20
Area Factor		$ft^2/lb/mil$	160
Water Absorption	D-570	%	0.32 equilibrium
Rockwell Hardness	D-785	(R Scale)	118
Pencil Hardness	D-3363	Scratch Hardness	B
Taber Abrasion Resistance Δ Haze	D-1044	%	45
OPTICAL			
Light Transmission	D-1003	%	88-91
Haze	D-1003	%	0.5 (GG only)
Yellowness Index	D-1925		<1.0
Refractive Index	D-542		1.586
MECHANICAL			
Tensile Strength Yield	D-882	psi	8,700
Tensile Strength Break	D-882	psi	10,500
Elongation	D-882	%	150
Tensile Modulus	D-882	psi	350,000
Tear Strength Initial	D-1004	lb/mil	1.4-1.8
Tear Strength Propagation	D-1922	g/mil	30-55
Impact Strength	Gardner	in-lb	120-30 mil film
Burst Strength	D-774	Mullen, psi	40-45 @ 1 mil
Fold Endurance	M.I.T.	Double folds	200 @ 10 mil
THERMAL			
Tensile Heat Distortion	D-1637	°F	302° @ 50 psi
Deflection Temperature	D-648	°F	288° @ 264 psi
Specific Heat	C-351	Btu/lb/°F	0.30
Thermal Conductivity	C-177	$Btu/hr/ft^2/°F/in$	1.35
Coefficient of Thermal Expansion	D-696	in/in/°F	$38x10^{-6}$
Strain Relief	D-1204	%	<0.2 275°F
Brittleness Temperature	D-746	°F	-211°
Vicat Softening Temperature	D-1525	°F	305°
ELECTRICAL			
Dielectric Strength 72° F in oil	D-149 short time	V/mil	1,700 10 mil film
Dielectric Constant 60 Hz / 10° Hz	D-150		3.00 / 3.00
Dissipation Factor 60 Hz / 1 MHz	D-150		.001 / .002
Volume Resistivity	D-257	ohm-cm	10^{17}
Surface Resistivity	D-257	ohm-sq	10^{15}

PLEASE NOTE: Properties reported here are typical of average lots. Rowland Technologies, Inc. & MULTI-PLASTICS, INC. make no representation that the material in any particular shipment will conform exactly to the value given herein nor is Rowland Technologies or MULTI-PLASTICS responsible for the performance of this material for a given application. The user of the material should perform their own testing to determine the suitability of the material for the intended use. Applications depicted herein are not specifications. They are provided as information only.

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