

# RowTec® FR FLAME RETARDANT POLYCARBONATE FILM

Technical Datasheet  
01/23  
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## Typical Properties (for Clear unless otherwise noted)

	Test Method	Units	Typical Values
<b>Physical</b>			
Specific Gravity	ASTM D-792	–	1.32
Water Absorption at 24 hours	ASTM D-570	%	0.28
<b>Optical</b>			
Refractive Index @ 77° F (25° C)	ASTM D-542	N <sub>d</sub>	1.60
Light Transmission <sup>1</sup>	ASTM D-1003	%	89
Yellowness Index <sup>1</sup>	ASTM D-1925	–	< 1.0
<b>Mechanical</b>			
Tensile Strength, Break <sup>1</sup>	ASTM D-882	psi	8,500
Tensile Strength, Yield <sup>1</sup>	ASTM D-882	psi	10,000
Tensile Elongation, Break <sup>1</sup>	ASTM D-882	%	130
Tensile Modulus of Elasticity <sup>1</sup>	ASTM D-882	psi	320,000
Tear Strength, Initial <sup>1</sup>	ASTM D-1004	lb / mil	1.6
Tear Strength, Propagation <sup>1</sup>	ASTM D-1922	g / mil	45
Impact Strength, Gardner <sup>2</sup>	ASTM D-5420	in lbs	252

### Footnotes:

(1) Value for 0.010" film

(2) Value for 0.030" film

### Note

Properties reported here are typical of average lots. Rowland Advanced Polymer Films makes no representation that the material in any particular shipment will conform exactly to the value given herein nor is Rowland Advanced Polymer Films 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.

WARNING: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.



ORAFOL Americas  
Advanced Polymer Films

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	Test Method	Units	Typical Values
<b>Thermal</b>			
Deflection Temperature under Flexural Load @ 264 psi	ASTM D-648	°F	290
Specific Heat Capacity @ 40° F	ASTM D-1269	BTU / (lb °F)	0.30
Thermal Conductivity	ASTM D-5470	BTU / (hr) (ft <sup>2</sup> ) (°F/in)	1.35
Coefficient of Thermal Expansion	ASTM D-831	in / in / °F	38 x 10 <sup>-6</sup>
Glass Transition Temperature	ASTM D-3418	°F	305
Brittleness Temperature	ASTM D-746	°F	-211
Vicat Softening Temperature	ASTM D-1525	°F	345
<b>Electrical</b>			
Dielectric Strength @ 72° F in oil, short time <sup>1</sup>	ASTM D-149	V / mil	1,500
Dielectric Constant 60 Hz/1 Mhz	ASTM D-150	–	2.9 / 2.8
Dielectric Factor 60 Hz/1 Mhz	ASTM D-150	–	0.0026 / 1.17
Volume Resistivity	ASTM D-257	Ω-cm	10 <sup>17</sup>
Surface Resistivity	ASTM D-257	Ω-cm <sup>2</sup>	10 <sup>15</sup>
Arc Resistance, Tungsten Electrodes	ASTM D-495	sec	62
<b>Flammability</b>			
Flammability Classification (Clear 0.003" – 0.004")	UL 94	–	VTM-0
Flammability Classification (Clear 0.005" – 0.030")	UL 94	–	V-0
Flammability Classification (Black 0.016" – 0.024")	UL 94	–	V-0

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