RowTec® FR
FLAME RETARDANT POLYCARBONATE FILM

Key Performance Properties

- Optical
- Mechanical
- Thermal
- Electrical

Applications

- Printing
- Die-Cutting
- Embossing
- Thermoforming
- Hot Stamping

Common Uses

- Barrier insulation
- Backlit panels
- Commercial business equipment
- Electronic shielding
- FR nameplates and labels

Technical Data

Thickness Range	0.010” – 0.030”
Surface Textures	Gloss/Gloss* Velvet/Matte Velvet/Gloss Matte/Gloss
Master Roll Lengths	up to 2,000 yards *(dependent on thickness)* Custom roll lengths available
Widths	48.5” – 63” Custom slit widths available
Sheets	24.5” x 48.5” sheets 48.5” x 96.5” sheets Custom trimmed and squared sheets available

* Standard protective masking configuration (0.005” - 0.007” is cling/cling and 0.010” - 0.030” is stick/cling).

ORAFOL Americas
Advanced Polymer Films

320 Barnes Road
Wallingford, CT 06492
polymer-americas@orafol.com – www.orafol.com

Typical Properties *(for Clear unless otherwise noted)*

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

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	Test Method	Units	Typical Values
Thermal			
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^2) (°F/in)	1.35
Coefficient of Thermal Expansion	ASTM D-831	in / in / °F	38 x 10^{-6}
Glass Transition Temperature	ASTM D-3418	°F	305
Brittleness Temperature	ASTM D-746	°F	-211
Vicat Softening Temperature	ASTM D-1525	°F	345
Electrical			
Dielectric Strength @ 72° F in oil, short time[1]	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^{17}
Surface Resistivity	ASTM D-257	Ω-cm^2	10^{15}
Arc Resistance, Tungsten Electrodes	ASTM D-495	sec	62
Flammability			
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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