RowTec® FDA
FDA GRADE POLYCARBONATE FILM

Key Performance Properties

- Optical
- Mechanical
- Thermal
- Electrical
- Specification Compliant - FDA Food Additive Regulation[5] 21 CFR 177.1580

Applications

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

Technical Data

Thickness Range	0.002” – 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

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Typical Properties *(for Clear unless otherwise noted)*

	Test Method	Units	Typical Values
Physical			
Specific Gravity	ASTM D-792	–	1.20
Area Factor	ASTM D-590	ft^2 / lb / mil	160
Water Absorption at equilibrium	ASTM D-570	%	0.32
Rockwell Hardness	ASTM D-785	R Scale	118
Pencil Hardness	ASTM D-3363	Scratch Hardness	B
Optical			
Refractive Index @ 77° F	ASTM D-542	N_D	1.586
Light Transmission	ASTM D-1003	%	89
Haze[4]	ASTM D-1003	%	0.5
Yellowness Index	ASTM D-1925	–	< 1.0
Mechanical			
Tensile Strength, Break	ASTM D-638	psi	10,500
Tensile Strength, Yield	ASTM D-638	psi	8,700
Tensile Elongation, Break	ASTM D-638	%	150
Tensile Modulus of Elasticity	ASTM D-638	psi	350,000
Impact Strength, Gardner[3]	ASTM D-5420	in lbs	120

Footnotes:
(1) Value for 0.001" film (2) Value for 0.010" film (3) Value for 0.030" film (4) Value measured for Gloss / Gloss film

(5) Value for all thicknesses

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	288
Tensile Heat Distortion @ 50 psi	ASTM D-1637	°F	302
Specific Heat Capacity @ 77° F	ASTM D-351	BTU / (lb °F)	0.30
Thermal Conductivity	ASTM D-177	BTU / (hr) (ft^2) (°F/in)	1.35
Coefficient of Thermal Expansion	ASTM D-696	in / in / °F	38 x 10^{-6}
Brittleness Temperature	ASTM D-746	°F	-211
Vicat Softening Temperature	ASTM D-1525	°F	305
Electrical			
Dielectric Strength @ 72° F in oil, short time[2]	ASTM D-149	V / mil	1,700
Volume Resistivity	ASTM D-257	Ω-cm	10^{17}
Surface Resistivity	ASTM D-257	Ω-cm^2	10^{15}
Specification Compliance			
FDA Food Additive Regulation[5]	21 CFR 177.1580	–	Clear only

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