



## Frost LED Vinyl Lens Materials vs. PMMA

Considering lens performance, Resilience™ LS Frost PVC offers properties and material performance similar to PMMA, often at a significantly lower cost.

Lens Performance	Resilience™ LS Frost PVC	Acrylite® Satinice Frost PMMA
Light Transmission <sup>1</sup> at 0.060" (1.5mm)	83% Low Diffusion 78% Medium Diffusion 75% High Diffusion	81% Low Diffusion
Diffusion Half Power Angle (DLD)	26° Low Diffusion 41° Medium Diffusion 58° High Diffusion	26° Low Diffusion
Tensile Strength <sup>2</sup> Tensile Modulus <sup>2</sup> Tensile Elongation (break) <sup>2</sup>	7,360 psi 400,000 psi 20%	7,330 psi 330,000 psi 43%
Flammability (UL 94)	V-0 @ 1.5mm 5VA @ 2.0mm	HB @ 1.6mm
Notched Izod Impact (73°F) <sup>3</sup>	2.3 ft-lb/in	0.6 ft-lb/in
Heat Deflection Temperature <sup>4</sup>	157°F/69°C	182°F/83°C
UV Stability	Good	Excellent
Chemical Resistance	Excellent	Good
Typical Lens Profile Cost	10-15% Savings <sup>5</sup>	Baseline

<sup>1</sup> ASTM D-1003 measured by Polymer Diagnostics, Inc. (PDI) on extruded profiles

<sup>2</sup> ASTM D-638

<sup>3</sup> ASTM 256

<sup>4</sup> ASTM D-648 66 psi, unannealed, 0.125"

<sup>5</sup> Savings depends on profile size and production volume



**Find out more about the full line of Resilience LS family of rigid vinyl polymers for clear and diffuse lens materials.**

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