

Specialty Acrylics Lighting Guide



ACRYLITE® Satinice light diffusing acrylic polymers

Where high lighting efficiency and excellent hiding power are desired, ACRYLITE® Satinice acrylic polymers provide added-value in performance and reduced lighting costs. ACRYLITE® Satinice acrylic polymers allow 20 to 40 percent increase in light transmittance at the same energy level or equivalent lighting transmittance at lower energy levels versus pigmented acrylic products.

ACRYLITE® Satinice acrylic polymers are available in four grades and can be further customized with the addition of UV absorbers, lubricants and colorants.

ACRYLITE® Satinice provides the following outstanding properties:

- High light transmission with outstanding diffusion to eliminate LED hot spots
- Wide range of diffusion gradients
- Polymer can be “blended” together to create even more tailored precision for the specific application
- Scattering particles within the acrylic
- Matte surface (when extruded) provides better light scattering, glare reduction and scratch resistance
- Extremely weather resistant

ACRYLITE® Heatresist & ACRYMID® acrylic polymers

The ACRYLITE® portfolio offers the widest range of acrylic polymers for optical, thermal, and outdoor LED lighting applications. Our polymers offer excellent optics which yield high efficiencies in all types of demanding lighting applications. Special UV blocking and HID grades are available.

The ACRYLITE® Heatresist & ACRYMID® portfolio boasts four grades with a broad range of heat distortion resistance. Vicat softening points range from 115°C to 170°C with RTI values up to 105°C.

ACRYLITE® Heatresist provides the following outstanding properties:

- High heat distortion resistance
- Excellent transmission and clarity
- High vicat softening temperature
- High strength and rigidity
- Good weather resistance
- High surface hardness
- High chemical resistance



ACRYLITE® LED

ACRYLITE® LED molding and extrusion compounds provide best-in-class products for decorative lighting, signage, displays and lighting profiles. ACRYLITE® polymers are well known for premium weatherability, superior optics and ease of processing.

Backlit Applications

ACRYLITE® LED is available in two specialty whites developed specifically for backlit applications using high brightness LED lights. They provide uniform light distribution, high transmission values when backlit with intense LED's and excellent hiding power of disturbing hotspots. These properties make it possible to reduce the spacing required to cover the LED light source and to minimize the wall thickness of the fixtures.

Edge Lit Applications

Components made from ACRYLITE® LED LD grades appear crystal clear and are completely transparent when unlit. They are optimized for edge lighting so as to guide light across different linear path lengths.

No additional diffusion films or micro-structures are needed to achieve uniform light distribution across the entire surface.

ACRYLITE® Resist impact modified acrylic polymers

ACRYLITE® Resist acrylic polymers are available in nine different grades with varying degrees of rubber loading and melt flow rates. Depending on the application requirements, there is an ACRYLITE® Resist grade that can provide the optimum balance of impact resistance and melt flow properties while achieving your optical needs.

ACRYLITE® Resist acrylic polymers are specially formulated to offer:

- Enhanced impact resistance and toughness
- Clarity similar to standard PMMA
- Resistance to adverse effects of outdoor weathering
- Chemical resistance

ACRYLITE® Resist acrylic polymers will retain both their physical properties and appearance after long periods of outdoor exposure without compromising light transmission. ACRYLITE® Resist polymers vary according to molecular weight, co-monomer content, rubber modifier and lubricant content.

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