LEXALITE®
AN A.L.P. BRAND

Injection Molded Material Information April 2016

ACRYLICS (AC):

PREMIUM (PAC)
(Formerly called HID - ACRYLIC) Premium Grade Acrylic (90C RTI) may be utilized in some applications at a continuous operational temperature up to 90° Celsius. Best resistance to yellowing at temperatures over 80 C, A.L.P. recommends a maximum operational temperature up to 80° Celsius to achieve optimum life.

LIGHTING (LG)
Lighting Grade Acrylic (RTI 90C) is best when the parts require excellent long-term resistance to yellowing. A.L.P. recommends a maximum operational temperature up to 80° Celsius to achieve optimum life. Colors are available per the price list options.

LED (FC)
LED Grade Acrylics have standard UV stabilizer package, which is recommended for use in SSL lighting applications. A.L.P. recommends a maximum operational temperature up to 70° Celsius to achieve optimum life.

GENERIC
This "Generic" Acrylic classification indicates that the product is made from a variety of wide-spec acrylic materials and that **no UL recognition is available.** This wide-spec acrylic material is not recommended for use in high heat or HID applications. Certain products may be offered in wide-spec acrylic to provide the customer with cost savings. This "Generic" classification of materials may vary in color, diffusion, impact modifier amounts, transmittance, impact strength, etc. A.L.P.'s criteria for these variances is wide and A.L.P. shall be the sole judge of whether a material is defective based on these criteria. Material certification is not generally available.

EDGELIT
Edgelit Grade Acrylics have limited to no additives and minimal edge color, and are only recommended for use in edgelit applications. A.L.P. recommends a maximum operational temperature up to 70° Celsius to achieve optimum life.

MOON GLOW™
The Moon Glow designation indicates a customized pigment has been added to the PMMA resin. The appearance of Moon Glow products will be slightly translucent. Using products with a Moon Glow pigment can help to minimize glare and produce a desirable cosmetic effect. A.L.P. recommends a maximum operational temperature up to 80° Celsius to achieve optimum life.

INTERFACE
This uniquely foamed acrylic material provides diffuse reflection and an extreme white color. A.L.P. recommends a maximum operational temperature up to 80° Celsius to achieve optimum life.

LUMIEO®
The Lumieo designation indicates a customized material has been added to the PMMA resin. The appearance of Lumieo products will be diffuse white. Using products with a Lumieo designation provides high transmittance with improved lamp hiding. A.L.P. recommends a maximum operating temperature up to 80° Celsius to achieve optimum life.

IMPACT (DR)
The Impact designation indicates an impact modifier has been compounded into the PMMA resin. The impact modifier is to increase the ability of the acrylic to withstand higher impact loads in specific applications where required. A.L.P. recommends a maximum operating temperature up to 70° Celsius to achieve optimum life.

POLYCARBONATES (PC):

LIGHTING
Lighting Grade Polycarbonates key physical property is resistance to impact. It is virtually unbreakable. A.L.P. recommends a maximum operational temperature up to 90° Celsius to achieve optimum life. Polycarbonate should be used in areas where vandal resistance is a concern. The optical clarity of polycarbonate is degraded by ultraviolet radiation. UvaLex® coating and/or UV guarded lamps are recommended. Colors are available per the price list options.

A.L.P. Lighting Components, Inc., 6333 Gross Point Road, Niles, IL 60714
Phone: (877) 257-5841 • Fax: (800) 438-2500 • www.alplighting.com

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POLYCARBONATES (PC):

LED
LED Grade Polycarbonates have higher transmittance values as minimal additive packages are used. These grade are for use with sources with little or no UV output, and limited outdoor exposure.

REFLECTOR
Reflector Grade Polycarbonates are custom developed for tool surface replication and coating compatibility. These grades contain limited release additives and can be black, white or clear.

FROST
Frost Polycarbonate is ideally suited for applications requiring a softened appearance, without the use of white pigments. Frost PC uses beads within the PC to diffuse light while maintaining high transmittance. A.L.P. recommends a maximum continuous use of 80° Celsius with this material.

SILICONES:

OPTICAL SILICONE
This innovative molding material creates lenses that can sustain a 120°C operating temperature, excellent resistance to discoloration and are unbreakable.

DIE CAST ALUMINUM:

A.L.P. uses A380 in the manufacturing of Die cast products.

UVALEX®
Is A.L.P.'s proprietary treatment, which retards discoloration of polycarbonate due to UV from sunlight or lamps. UvaLex treatment is recommended for any outdoor or UV emitting lamp application with polycarbonate. In many cases UvaLex can double or triple the useful life of a polycarbonate part.

Note: All specifications are subject to change without notice. Please contact A.L.P. Technical Services Department for the latest material information by phone 231-547-6584 or e-mail engtech@alplighting.com.

IMPORTANT MATERIAL NOTICES:

1. All materials are subject to accelerated degradation when improperly applied. Exceeding recommended temperature limits, exposing to concentrated UV, chemicals or physical damage will result in decreased life and performance.
2. A.L.P. uses a variety of acrylic materials in the production of our Specialty Sheet and Film products. Please be aware that material certifications are not provided on these products unless requested by the customer prior to quoting. Our standard manufacturing practice allows the use of regrind exceeding 25% in production of these products.

<u>USE OF LENSES AND REFRACTORS WITH METAL HALIDE LAMPS</u>
Metal halide lamps are prone to violent end of life failure which can result in pieces of hot arc tube segments landing on the lens. NEMA Lighting Systems Division has published a document "Best Practices for Metal Halide Lighting" and NEMA has also issued a "Rationale" to UL for changing the 1598 standard. Our interpretation of these documents is that the best and safest solution for violent end-of-life lamp failures is the use of Type-O Open Rated metal halide lamps. Type-O lamps and exclusionary sockets have become more cost effective and are being commonly employed by lighting fixture OEMs on fixtures using bottom lenses.

We have also become aware that end users may fail to follow lamp and fixture manufacturer's guidelines for location of fixtures, maintenance, lamp life, etc. As a result, it is our recommendation that LexaLite brand lenses not be used as lamp containment devices and that end users be notified that existing lamps should be replaced with Open Rated lamps. Our UL file E134182, which listed our "Polymeric Lamp Containment Barriers", was discontinued effective June 30, 2010.

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