

Where ideas
take shape.

GENIUS



For over 60 years Pexco has been serving the Lighting market with plastic lens extrusions and other plastic lighting fixture components. Pexco provides design and manufacturing support expertise that focuses on helping Lighting OEMs optimize and align the plastic material blend, light diffusion performance, “hot spot” hiding power, efficiency, aesthetics, fit, cost, speed to market, and overall manufacturability, for their fixture designs and products. Our Durafrost®, Durayl®, and Durayl® LED material products suit a variety of industry needs, including sophisticated LED designs and performance demands. And accompanying multiple tool and die shops across our plant footprint, we operate three Lighting Plastics manufacturing centers of excellence.





Team Up with Your Trusted LED Plastics Advisor

Many in the industry describe the LED moment as arrived. Manufacturing efficiencies combined with superior performance features, longer life cycles, and energy saving capability have created a market environment ripe for significant growth and expansion of this technology.

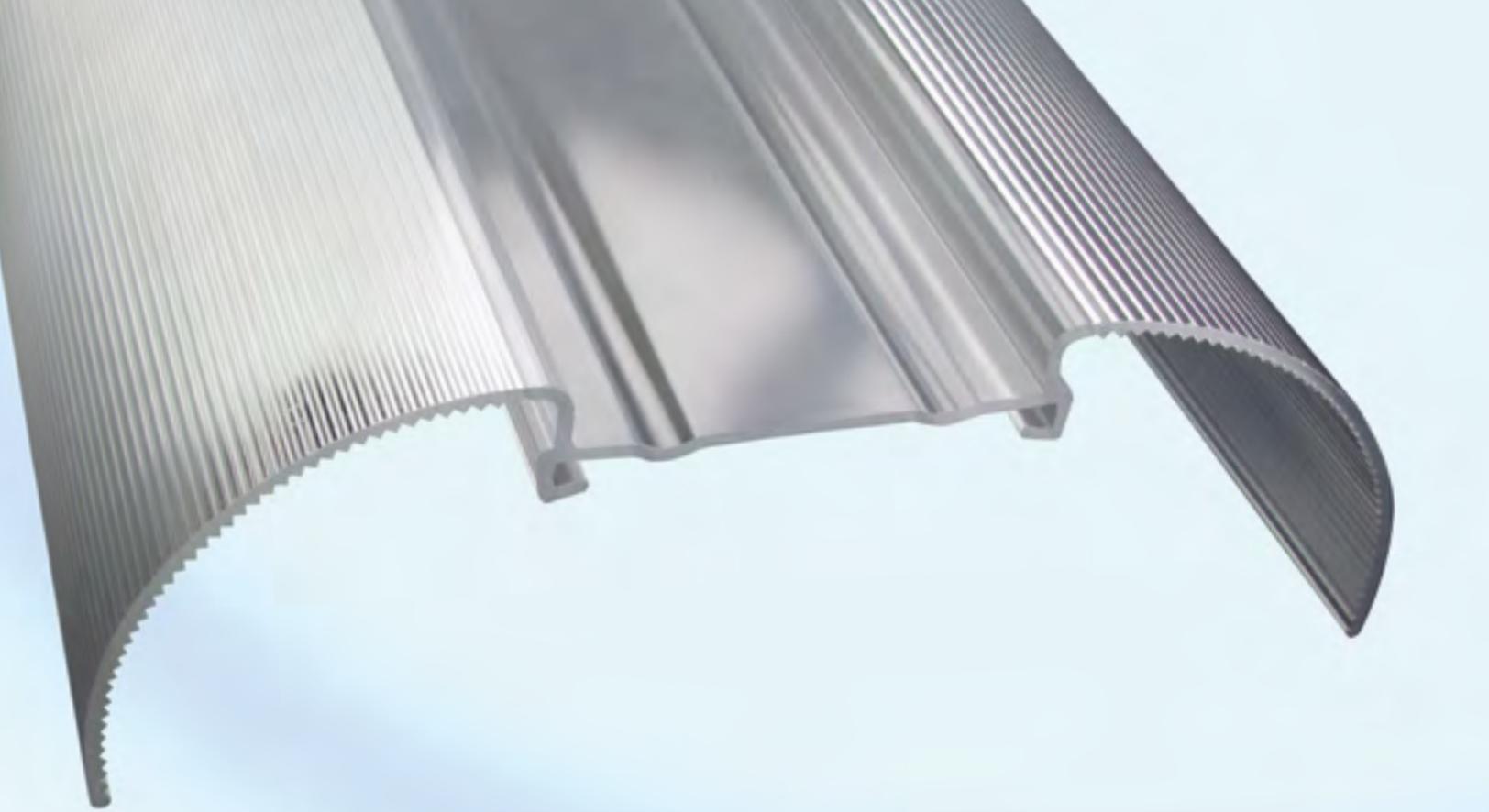
However, lighting design standards across the industry have not been achieved. And this has impacted the market's ability to optimize their proprietary designs and LED configurations with a superior performing lens while achieving economies of scale.

This is where Pexco enters the equation. Our expert engineers assist customers with all applications, from the design and material phase through our value-added services. Our partnerships include selecting the best material solution to maximize light dispersion while balancing a robust design with shop floor experience (manufacturability).

Pexco is able to process a wide array of materials for your applications, but also features some select material blends that may be best suited to your needs as you innovate LED products and solutions. Our material recommendations include:

- ▶ *Durafrost®*. Our flagship frosted acrylic blend, this material covers a wide array of applications and designs.
- ▶ *Durafrost® LED*. Specifically formulated with color additive and other ingredients, this blend comes in a selection of specific formulations to help minimize hotspots.
- ▶ *Durayl®*. A blend of standard acrylic with its higher impact variety, *Durayl* is optimized for those applications requiring long life and enhanced durability.
- ▶ *Durayl® LED*. Formulated for LED applications with a color enhancement to minimize hotspots while maximizing light transmission, this premium product is available in series blends *100, 200, 300 and 400*.

Let us help you navigate this open sea of LED lighting opportunity with our material expertise and manufacturability recommendations. Pexco is the plastics advisor you can trust.



Your Trusted Advisor for Lighting Plastics

Pexco is a custom plastics manufacturer, specializing in plastic extrusions and precision injection molding. We provide a multitude of plastic component designs satisfying OEM customer needs. Below are the most common type of products we manufacture for the lighting industry; however, leveraging our history, experience across markets, and the scale of our organization, our unique custom capabilities permit us to bring new solutions and applications each and every day.

▶ **Extruded Lenses and Diffusers**

- LED lenses, dust covers, and diffusers
- Fluorescent lighting lenses
- Tubes & tube guards
- Acrylic & Polycarbonate tubes & lenses

▶ **Other Lighting Plastics Solutions**

- Extruded reflectors & housings
- Light seals and other custom extrusions
- Injection molding components and lenses



Providing Comprehensively

Pexco's customers require superior performance and technical support because they want a market advantage. Pexco has developed its capabilities over the years to deliver what our customers want and need to be successful.

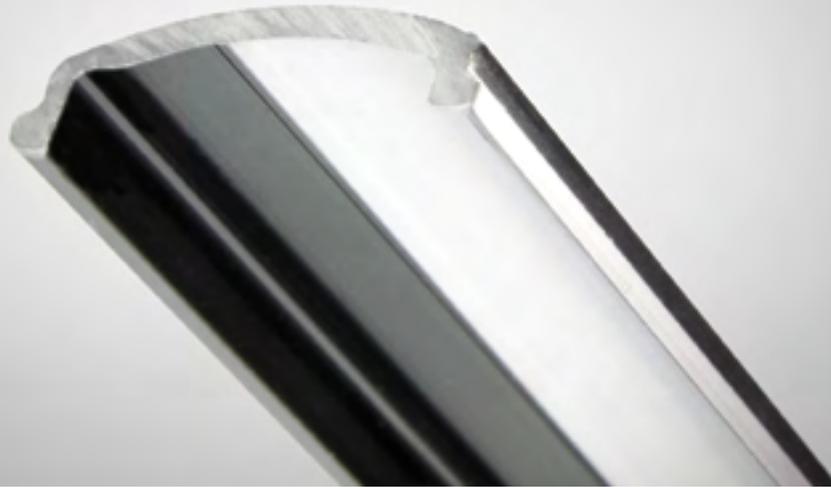
- ▶ **Engineering Design Support:** A team of engineers help customers select the correct resin blend, prismatic surface, and wall thicknesses to deliver superior optical performance while balancing overall cost.
- ▶ **Extrusion:** Custom mono and co-extrusion manufacturing for lighting applications. Pexco has the technical expertise and a large variety of equipment to produce small and large, simple and complex extruded profiles, using an array of materials and colors. We extrude in multiple locations across the US and Mexico.
- ▶ **Precision Injection Molding:** Focused on LED Lenses, thermoplastic heat sinks and other precision lighting components that require engineering grade materials or machining or fabrication.
- ▶ **Resin blending:** With multiple gravimetric blenders, customers receive the optimal blend of acrylic, impact acrylic, frost, and color to prevent cracks, meet specific light transmission requirements, and hide LED pixilation. Pexco also blends Polycarbonate and other base resins with a variety of additives for lighting component applications.
- ▶ **Fabrication:** Custom designed saws deliver tight length tolerances and angle cuts; 4 & 5 axis CNC for precision holes and notches, ultrasonic welding, punching, and drilling.
- ▶ **Testing:** Pexco performs the following test functions based on customer requirements: First Article inspection, PPAP, Light Transmission testing, color spectrophotometry readings and ROMIDOT readouts. We also utilize outside labs when necessary.





Making It Right The First Time Every Time

- ▶ **Speed to Market:** Customers have a mandate to get their product to market as quickly as possible. Pexco can provide drape form samples and extruded functional prototypes within 2-4 weeks. For production preparation, we perfect the tooling through a tuning & development process to provide our customers reliable & consistent part quality.
- ▶ **APQP:** Advanced Product Quality Planning: Pexco leads customers through an APQP process before tooling design for any new product. This gives customers the best opportunity to optimize product performance.
- ▶ **Trusted Advisor:** Are you interested in learning the best design techniques and material recommendations for plastic extruded components? Please contact Pexco to schedule a consultation in extrusion design and formulation.



There's No Room for Inconsistency

Lenses & Diffuser Products

Pexco extrudes LED & Fluorescent lighting lenses, diffusers, and tubes across its continental footprint. From acrylic blends and frosted materials such as our Durayl® and Durafrost® lines of products to performance polycarbonates, from co-extruded lenses to custom colors and prismatic patterns, Pexco is your extruder of choice, with a reputation and history of development innovation and manufacturing excellence.

▶ LED Lenses, Dust Covers, Diffusers

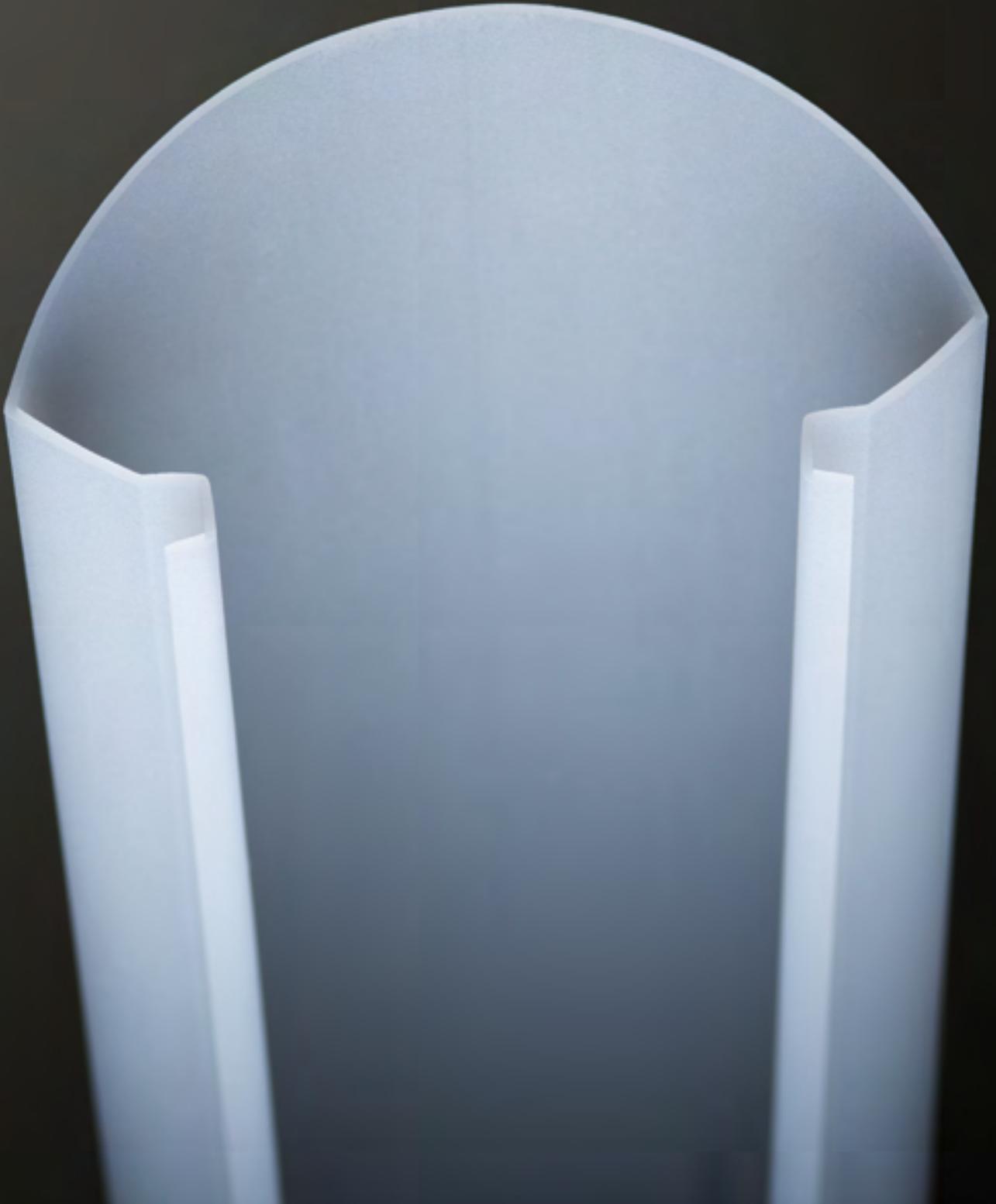
- Acrylic, polycarbonate, UL certified, or our premium Durafrost® and Durayl® LED
- Lens width ranging from 1/3 inch to 23 inches
- Linear or diamond or other custom prismatic patterns
- Complex hooks and legs, co-extrusions and custom colors
- Various wall-thicknesses from .030" to .120" to attain superior performance in structure and light dispersion and diffusion

▶ Fluorescent Lenses

- Clear and diffusive acrylic and polycarbonate lenses
- Prismatic wrap lenses, custom and stock
- 1-, 2-, and 4-light applications

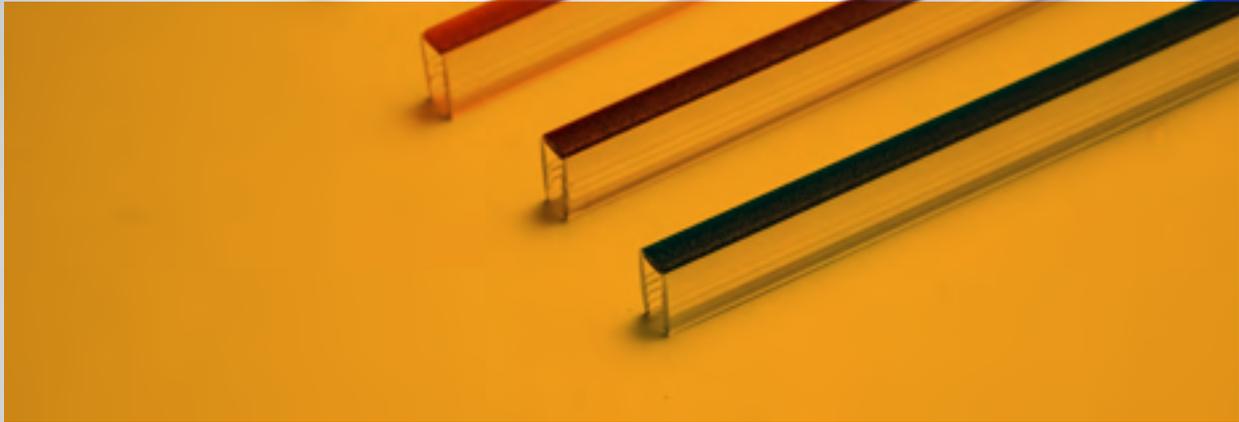
▶ LED & Fluorescent Tubes & Tube Guards

- LED polycarbonate custom tubes using UL certified diffusive resins, replacing fluorescent bulbs
- Custom tubes with co-extruded reflectors to maximize efficacy
- Tube Guards for T5, T8, and T12 lamps in multiple sizes
- Acrylic and polycarbonate tubes up to 12" in diameter





Team Up with a Company You Can Trust



Other Custom Lighting Products and Components

Solid State Lighting (SSL) has changed the industry. There are a number of new component applications requiring the custom plastics development and manufacturing expertise that Pexco provides. Below are some additional examples areas where we can help. Give us a call, and let's Team Up.

- ▶ **Light Seals**
 - Flexible PVC and rigid PVC co-extrusions
 - Inline punched notches

- ▶ **Dust Covers**
 - Clear Acrylic; Clear Polycarbonate

- ▶ **Other Custom Extrusions & Plastics**
 - Pull chain extrusions
 - Injection molding



Providing The Light Solution - A Pexco Case Study

Challenge: One of the largest indoor lighting OEM's wanted to take an extremely wide, complex three-piece lens design and develop a single-piece solution that would facilitate installation and maximize performance, dispersing light without creating shadows within the creases of the fixture.

Solution: Leverage design engineering, in-house tooling techniques, material blend formulation and consultation, and precision, tight-tolerance manufacturing to satisfy challenging customer and product demands.

Result: To achieve the desired design results, Pexco had to think well beyond normal design practices. Tooling was critical and had to be modified more than once to achieve optimal performance. Pexco's main goal was always to deliver the part to its print specification, and maintain a repeatable process so that year after year, consistent, high quality parts are made for our customer.

From design to delivery, Pexco was able exceed customer delivery expectation and over the last few years has been able to provide significant dollar savings based on the conversion of three parts to one.

Get to know the Pexco way.

Pexco is a North American leader in the design, manufacturing and delivery of custom plastics solutions. Our team of engineers and proven experience in several specialty segments including medical, industrial, commercial, building and infrastructure ensure you receive the highest quality products to satisfy your unique needs.

Find out how a partnership with Pexco is the best way to start shaping your future today.

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