

Gentex Advantages:

- *In-house laboratory for dye synthesis and development*
- *Optical quality products and materials*
- *Broad selection of filters for both laser and non-laser applications*
- *On-site spectrophotometer and laser measurements*
- *Casting, injection molding, and extrusion capabilities*
- *Proprietary organic dyes*
- *Industry knowledge and experience spanning more than three decades*

Product Applications:

- *Military Visors*
- *Industrial Safety Products*
- *Laser Safety Products*
- *Security Devices*
- *Imaging and Sensors*
- *Medical Industry*

GENTEX[®]



LIGHT MANAGEMENT & LASER PROTECTIVE PRODUCTS

LIGHT MANAGEMENT & LASER PROTECTIVE PRODUCTS

As the emphasis on light in technology grows, so too does the need to manage it and protect against it. Gentex Light Management and Laser Protective Products offers a range of options for accomplishing just that.

Originally developed for the military, our patented technology is now utilized world-wide for a variety of industries including imaging and sensors, safety products, medical applications, military threats and industrial uses. Our products include a comprehensive offering of laser and light filters that can be categorized into one of four main groups: absorber dyes, resin, lens blanks, and sheet material, with our absorber dyes being the building block for all of these.

Because we utilize our own in-house laboratory for developing and manufacturing our dyes, Gentex has complete control over the entire process associated with the production of our filters. This, combined with our other manufacturing capabilities such as extrusion, injection molding, and press polishing, adds strength to our ability to quickly and accurately provide cutting-edge technology at maximum performance to a world of constantly changing needs.

How It Works

The foundation for all of the light and laser filters that Gentex offers is our assortment of absorber dyes. These unique and highly sophisticated dyes are synthesized in our laboratory and homogeneously dispersed into various polymeric hosts to either block or transmit specific wavelengths of light. By carefully choosing a dye, engineers have the ability to selectively block single or multiple wavelengths anywhere from the ultraviolet to the near-infrared regions of the electromagnetic spectrum.

When the dye has been added to the polymer we then have the opportunity to further the process through other means of manufacturing such as cell casting, injection molding, or extrusion. Whether your product need is the basic dye, or an end product, Gentex filters will offer the performance you need for your application.



Absorber Dyes

Our proprietary line of organic dyes is a collection of over 300 narrow notch and broadband absorbers that can attenuate light in select wavelength regions between 300-1650nm. These absorber dyes can be used alone or in combination with one another to create entirely new and unique filter options with wide ranging applications from contrast enhancement, to long wavelength pass filters, NIR suppression, and laser protection. Used to facilitate the manufacture of our resin, lens blanks, and sheet material, this product group is particularly important as it supports the extension of all our other product offerings.



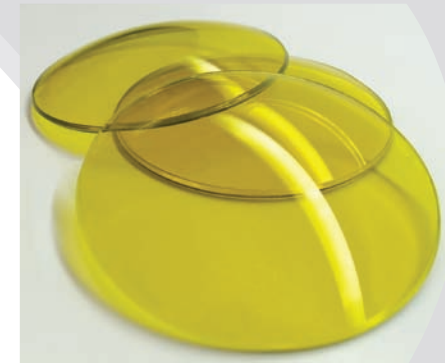
Resin

Being the primary ingredient for processes such as injection molding, compression molding, and extrusion, resin is an important raw material for many light and laser absorptive products. Our resin is available in acrylic and polycarbonate and is compounded with our absorber dyes to produce the highest quality material for your filter needs. In addition to our line of laser protective resins, Gentex also offers resin for long wavelength pass filters, and a complete line of weld shade resins with shade options ranging from 1.7 to 14. Available in a variety of thicknesses, this product is ideal for lens manufacturing and the production of small molded parts.



Lens Blanks

To compliment our supply of raw material products, Gentex has also been involved in the manufacture of visors and lens blanks since the 1970s. Primarily focusing on laser safety, our filter options encapsulate a broad range of today's most common laser types, offering high optical density levels and boasting excellent transmission for maximum optical clarity. With safety in mind, our lenses are carefully engineered and manufactured to ensure precise absorption at the intended wavelengths. Standard lens sizes are typically 70x2mm or 76x2mm and are molded at a base 6 curvature.



Sheet Material

An industry leader for over a decade, Gentex is the largest supplier of acrylic and polycarbonate sheet products for light management and laser protection applications. Reaching all corners of the world, our cast acrylic sheet products and extruded polycarbonate plates can be designed to attenuate light virtually anywhere from the UV to the NIR. Acrylic sheet sizes are standard at 24x36x0.125 inch (600x900x3mm), but can be produced as large as 36x48x0.125 inch (900x1200x3mm). Polycarbonate sheet sizes are typically 6.5x6.5x0.118 inch (165x165x3mm).



Perfect for constructing large or small viewing areas, our sheet products strategically block select wavelengths of light and offer excellent optical clarity to maximize viewing efficiency. Our laser protective sheets are engineered to maintaining high optical densities for full protection from stray radiation and are often applied to doorways, window units, and custom enclosures. They can be easily machined and cut, giving the user versatility for custom applications, and their durability and scratch resistance makes them a perfect alternative to glass, which is more expensive, difficult to machine, and only available in modest sizes. Custom designed filters can be developed by our in-house engineers.

Service

Understanding our customers' need for ease of purchase and prompt delivery of a quality product, Gentex prides itself on our ability to serve our customers to the highest levels of satisfaction. To help expedite customer orders and guarantee quality conformance, our ISO 9001:2000 certified staff works diligently through each new order to ensure efficiency and to significantly reduce delivery lead times. To further develop this practice, we have customer service contacts, account managers, and technical representatives ready to respond to your questions or concerns.