

Optimized injection molding for safety shields

Tenite™ cellulose acetate propionate (CAP) is an injection molding grade of cellulosic esters that provides clarity, impact resistance, and chemical resistance for safety shield applications.

CAP is created to optimize injection molding efficiency. Its superior flow characteristics allow molding shields with thin walls and long flow lengths—while maintaining excellent clarity and optical properties and meeting the ANSI Z87.14 standard for eye protection.

The difference is easy to see.

Unlike polycarbonate (PC), CAP lets you take advantage of the efficiencies of injection molding (compared to die cutting extruded sheet) *without needing to increase thickness.*

By allowing molders to create shields with 1-mm thickness, (most shields made of PC are 2-mm thick), CAP can help:

- Reduce material usage and cost
- Reduce cycle time
- Reduce weight—for greater wearer comfort
- Maintain superior optical properties due to low birefringence

CAP provides a superior combination of chemical resistance and impact strength compared with PC, allowing:

- Better compatibility with popular shield-cleaning agents
- Reduced vision impairment from crazing, whitening, and other aberrations related to chemical attack
- Increased flexibility for a wide range of bonding and fabrication options
- Excellent weatherability
- Potential for improved antifog and antistatic performance

See greater market visibility, too.

Since the face and safety shield market has become commoditized, it is a greater challenge to differentiate through design. CAP helps designers and brand owners differentiate products—and create higher margins—grounded in the benefits of a material difference.

- CAP combines the efficiencies of injection molding with the freedom of creating thinner shields—one-half the thickness of molded PC.
- CAP enables wear comfort through light weighting while providing cost saving opportunities.
- CAP supports sustainability initiatives and complies with California Proposition 65.





Ask an expert.

To learn more about how CAP can help advance your vision for safety shields, talk to your Eastman representative.

CAP lets you take advantage of trends toward biobased plastics.

Tenite™ cellulose acetate propionate (CAP) is manufactured from 100% renewable softwood trees that are harvested utilizing sustainable forestry management practices. For every pound of Tenite produced, approximately 40% to 50% by weight is renewable content.

Ready to support your unique vision for safety shields

Eastman has been a leader in cellulosic solutions for more than 80 years. Tenite™ cellulose acetate propionate (CAP) is a product of that experience and leadership. With CAP and other engineering bioplastics, Eastman is prepared to help forward-looking brands bring innovative products to market.

Eastman also is a leader in optimizing process parameters and testing performance. It has the technical expertise and applications experience to deliver total solutions for customers throughout the safety product value chain.

EASTMAN
The results of insight™

Eastman Corporate Headquarters
P.O. Box 431
Kingsport, TN 37662-5280 U.S.A.

U.S.A. and Canada, 800-EASTMAN (800-327-8626)
Other Locations, +(1) 423-229-2000

www.eastman.com/locations

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