EASTMAN

Visibly better face protection

Innovative materials with unique advantages over PC sheet

Eastman **TRITAN**™
copolyester

TENITE™
cellulosics

Eastman **SPECTAR**™
copolyester

The changing face of face protection

Polycarbonate (PC) sheet has satisfied many traditional needs in the face-protection market. But today, OEMs face greater needs for chemical resistance, scratch resistance, and other properties, especially in military and industrial specifications. It is an excellent time to reevaluate all the clear polymer options.

A clear vision beyond PC

Eastman Chemical Company offers a portfolio of clear products with properties that solve a variety of challenges for the face-protection market. Keep in mind that any change in the surface of a protective face shield can impair vision and be considered a failure, despite retention of specific properties, including impact resistance. Consider all your high-visibility needs when you select a material for face-protection parts.

Eastman Tritan™ copolyester

Eastman Tritan™ copolyester is new to the face-protection market but is already the standard for combining impact and chemical resistance—and much more.

- Easier to fabricate than PC—less shear-strength force required to die-cut
- Lower density than PC—more product per pound or kilogram of resin
- Saves energy and time—Tritan thermoforms at a lower temperature than PC and doesn't require drying before thermoforming.

Eastman cellulosics

Cellulosics are the premier choice for superior chemical resistance because of their innate ability to release stress. They also offer these advantages:

- Pass impact resistance specifications for many face-protection applications
- Unmatched retention of visibility quality
  - Pressed, polished acetate sheet sets the standard for clear and pristine optics.
  - Both acetate and propionate have industry-best scratch resistance.
- Natural antifog resistance makes cellulosics the clear choice for antifog and other coatings.
- Supports sustainability initiatives
  - Made from 100% renewable softwood materials
  - Sheet can be processed at 20% lower temperatures and dried in 25% less time compared with some popular polymers.

Eastman copolyester

Eastman Spectar™ copolyester is a proven, value-priced option for many applications.

- Passes impact resistance specifications for many face-protection applications
- Solid choice for applications that require thinner gauge
- Tougher than acrylics
- Easy to fabricate
- Cradle-to-pellet energy footprint is significantly less than PC.[1]

At a glance: properties for face-protection applications

	Tenite™ cellulose acetate*	Tenite™ cellulose acetate propionate*	Eastman Tritan™ copolyester	Polycarbonate (PC)	Eastman Spectar™ copolyester PETG
Scratch resistance	+ + +	+ + +	+ +	+ +	+
Chemical resistance	+ + +	+ + +	+ +	+	+
Impact strength	+	+	+ +	+ +	+
Heat resistance	+	+ +	+ +	+ + +	+
Optical clarity	+ + +	+ +	+ +	+ +	+ +

Legend
+ Good
+ + Better
+ + + Best

How Eastman is **facing tomorrow's sustainability challenges today**

As a world leader in polymer science and applications, Eastman has come face to face with many industry challenges. Today, Eastman is meeting the challenge of sustainability head-on, both as a critical internal initiative and to help customers offer products that support their sustainability goals.

For more information about recent milestones, visit www.eastman.com/Company/Sustainability.

[1] *Combined data from the Federal Institute for Risk Assessment (BfR) Dahlem, Thielallee 88-92, Berlin and Comprehensive LCI, conducted by Franklin Associates, Ltd.*

EASTMAN

The results of **insight**™

Eastman Chemical Company
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

SP-MBS-3673 12/16