Ensure optimal results

with Eastman Tritan™ copolyester.

Making a splash!

The goal of good processing technique is to mould aesthetic and functional reusable bulk water containers that meet the fitness-for-use requirements of the customer. The key to obtaining good clarity and impact strength for containers made with Eastman Tritan™ copolyester WX500 (clear) and WX510 (blue-tinted) is to work closely with your Eastman Technical Serv. Rep. Eastman is prepared to help you receive optimal results, beginning with these "best practice" tips for extrusion blow moulding (EBM) processing of Tritan.

*Extrusion blow moulding process setup and technique**

Melt extrusion

- Eastman Tritan™ copolyester requires proper drying prior to extrusion. Typical conditions are 88°C (190°F) for four to six hours at <–29°C (<–20°F) dew point to achieve <0.05% pellet moisture.
- Optimize barrel and head temperature profiles to obtain a true parison melt temperature of approximately 250°C (482°F). Actual barrel settings required to obtain this melt temperature will vary depending on screw design, RPM, barrel size, and other factors.

Parison detachment

- Eastman Tritan™ copolyester cuts easily with all common parison detachment configurations when extruded at typical process temperatures.

Mould setup

- Eastman Tritan™ copolyester sets up very quickly, so it may be possible to reduce cycle times compared with other materials.
- A typical mould temperature range is between 16° and 50°C (between 61° and 122°F).

Pinch location

- Base pinch weld terminations should be within the base footprint.
- Pinch weld terminations should have a smooth transition with adjacent wall thicknesses. Notches, large plastic deposits, and/or material folds should be avoided.

Deflash

- All deflashed material can be reground and reused if kept clean during the deflash process.
- Deflashing is best done while the pinch weld is just below the material softening point.

Starts and stops in production

- Go to www.eastman.com/tritan and have a look at our Literature Center with Technical Publications for start-up and shutdown tips and procedures.

Regrind

- Regrind should be dried along with virgin pellets after homogenous blending.
- Do not use regrind that is contaminated, dirty, degraded, discolored, or inadequately dried.
- As much as 60% of good-quality regrind can be processed with 40% virgin Eastman Tritan™ copolyester without a noticeable difference in the process or product.

Postprocessing

- Bottles made from Eastman Tritan™ copolyester do not require annealing.
- Visit our Literature Center at www.eastman.com/tritan and check out the Technical Publications for machining guidelines.

Material changeover

- The best way to ensure all material has been removed from the system is to remove the screw, dismantle the head, and manually clean all parts.

Eastman is a world leader in providing polymer solutions for moulders and brand owners. For more information about addressing your specific needs when processing Eastman Tritan™ copolyester on the EBM platform—or guidelines for processing on the injection stretch blow moulding (ISBM) platform—contact your Eastman Technical Serv. Rep.

**NOTE: Moulding machines set up to generate 5-gallon PC bulk water bottles can often process Eastman Tritan™ copolyester with minimal modifications.*

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