EASTMAN

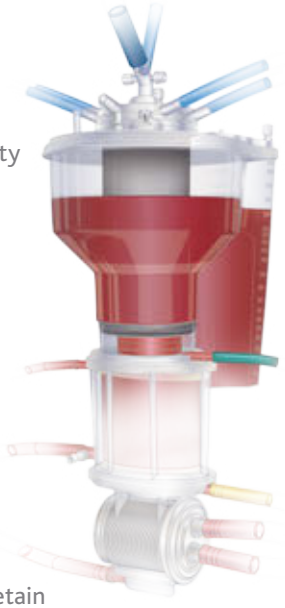
Eastman **TRITAN**™
copolyester

Sound science for blood contact devices

Eastman Tritan™ copolyester is an innovative, new-generation polymer that offers a balance of processing and performance advantages over other engineering thermoplastics and polyolefins—for greater added value, greater hospital and clinic confidence, and reduced system costs. When Tritan is used to manufacture blood contact devices, it can help health care organizations successfully address some of their most pressing issues.

Clearer view of blood flow

Parts made with Eastman Tritan™ copolyester provide outstanding clarity and chemical resistance:



- Glasslike transparency before and after gamma or electron beam (e-beam) radiation and ethylene oxide (EtO) gas.
- Superior clarity after sterilization allows improved performance from optical sensors and easier detection of entrapped air, thrombosis, and blood leakage.
- Chemical resistance helps devices retain aesthetic and functional integrity after exposure to blood, lipids, and aggressive disinfectants.
- Toughness of Tritan provides durability during shipping and handling—especially valuable for devices with multiple ports.

All this, plus bisphenol A (BPA) free, makes Eastman Tritan™ copolyester ideal for many blood contact and blood management devices, including:

- ***Surgical devices,*** such as oxygenators, bubble traps, hematological reservoirs, and housings for hematological filters and cardioplegia filters.
- ***Blood management devices,*** including centrifuge bowls, blood separation cassettes, and blood microfilters.

Improving products while improving sustainability

Eastman understands many medical care providers and facilities are working toward sustainability goals. Numerous hospitals have implemented Environmentally Preferable Purchasing (EPP) guidelines to reduce their overall environmental impact and improve patient safety.

Eastman Tritan™ copolyester provides a material that can be molded into parts with a world of sustainability advantages:

- Not manufactured with BPA, halogens, or *ortho*-phthalates.
- Free of chlorine—reduces a potential generation of hazardous pollutants during incineration.
- Lower specific gravity—2% less weight than polycarbonate.
- Devices molded from Eastman Tritan™ copolyester have excellent toughness, which means fewer broken parts, reduced part failure, less waste, and greater peace of mind for surgeons and nurses.

Helping you shape what's next

Eastman has a tradition of innovation. For more than 70 years, Eastman has been helping customers develop innovative products—then bring them to market efficiently.

Today, as always, Eastman is committed to the long-term needs of the medical industry. Eastman is a reliable supplier, provides technical support, and offers a robust portfolio of Eastman medical polymers for medical devices and rigid medical packaging.

Eastman is always prepared to leverage its industry understanding, design capability, and engineering and manufacturing expertise to help customers shape what's next.

Learn more

To see how Eastman Tritan™ copolyester and Eastman can help you manufacture superior blood contact devices, **visit www.eastman.com/medical or call 1-800-EASTMAN (1-800-327-8626).**

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The results of insight™

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Safety Data Sheets providing safety precautions that should be observed when handling and storing Eastman products are available online or by request. You should obtain and review the available material safety information before handling any of these products. If any materials mentioned are not Eastman products, appropriate industrial hygiene and other safety precautions recommended by their manufacturers should be observed.

It is the responsibility of the medical device manufacturer ("Manufacturer") to determine the suitability of all component parts and raw materials, including any Eastman product, used in its final product to ensure safety and compliance with requirements of the United States Food and Drug Administration (FDA) or other international regulatory agencies.

Eastman products have not been designed for nor are they promoted for end uses that would be categorized either by the United States FDA or by the International Standards Organization (ISO) as implant devices. Eastman products are not intended for use in the following applications: (1) in any bodily implant applications for greater than 30 days, based on FDA-Modified ISO-10993, Part 1, "Biological Evaluation of Medical Devices" tests (including any cosmetic, reconstructive, or reproductive implant applications); (2) in any cardiac prosthetic device application, regardless of the length of time involved, including, without limitation, pacemaker leads and devices, artificial hearts, heart valves, intra-aortic balloons and control systems, and ventricular bypass assisted devices; or (3) as any critical component in any medical device that supports or sustains human life.

For manufacturers of medical devices, biological evaluation of medical devices is performed to determine the potential toxicity resulting from contact of the component materials of the device with the body. The ranges of tests under FDA-Modified ISO-10993, Part 1, "Biological Evaluation of Medical Devices" include cytotoxicity, sensitization, irritation or intracutaneous reactivity, systemic toxicity (acute), subchronic toxicity (subacute), implantation, and hemocompatibility. For Eastman products offered for the medical market, limited testing information is available on request. The Manufacturer of the medical device is responsible for the biological evaluation of the finished medical device.

The suitability of an Eastman product in a given end-use environment is dependent on various conditions including, without limitation, chemical compatibility, temperature, part design, sterilization method, residual stresses, and external loads. It is the responsibility of the Manufacturer to evaluate its final product under actual end-use requirements and to adequately advise and warn purchasers and users thereof.