EASTMAN

Technical Data Sheet

Eastalite™ Copolyester MP007F

Applications

- Rigid medical packaging

Key Attributes

- Can be recycled with other copolyesters for use in nonmedical post-consumer markets
- Color and functional stability following ethylene oxide (EtO), gamma or e-beam irradiation, or gas plasma sterilization
- Compliant with applicable sections of ISO 11607 including microbial barrier
- Complies with select ISO 10993 requirements for biocompatibility of medical devices
- Decreased thermoforming cycle time and energy use
- Greater design flexibility including durability, easy printing, deep undercuts, long-life hinges, enhanced product protection
- Greater tear and flex strength than more brittle and crack susceptible HIPS
- Light blocking and opacity
- Light weight Styrene-free alternative
- Made without other materials of concern, including Latex, Butadiene, BPA and bisphenol S (BPS), ortho-phthalates, PVC, halogens
- Meets environmentally preferable purchasing guidelines
- Minimal generation of particulates and angel hair when trimmed or cut
- Minimal stress whitening
- Provides good heat seal performance to common lidding materials used with copolyesters
- Surface modifications are not necessary for COF and blocking force control
- Sustainable LCA -The global warming potential per tray is 0.33 kg CO2-eq/tray made using MP007F
- Temperature insulating effect

Product Description

Eastalite™ Foamed Copolyester MP007F with nonporous Eastar™ Copolyester 6763 skins is an opaque, amorphous material with a closed foam structure useful for medical packaging. It is normally white/pearlescent in appearance but may also be colored using Eastman resins and concentrates.

Typical Properties

Property[a]	Test Method[b]	Typical Value, Units[c]
General		
Total Thickness of A/B/A Sheet Tested	D 374	1.01 mm (39.68 mils)
Thickness of Each Eastar™ Copolyester Skin Layer	D 374	0.06 mm (2.38 mils)
Specific Gravity	D 792	0.78
Opacity	EMN	88 %
Mechanical Properties		

Instrumented Impact, Max Load	D 3763	244 N (55 lbf)
Tear Resistance, Graves		
M.D.	D 1004	155 N/mm (844 lbf/in.)
T.D.	D 1004	163 N/mm (1393 lbf/in.)
Tensile Strength @ Yield		
M.D.	ASTM D 882	16.0 MPa (2318 psi)
T.D.	ASTM D 882	16.3 MPa (2371 psi)
Tensile Strength @ Break		
M.D.	ASTM D 882	18.1 MPa (2619 psi)
T.D.	ASTM D 882	18.3 MPa (2659 psi)
Elongation @ Yield		
M.D.	ASTM D 882	4.4 %
T.D.	ASTM D 882	4.4 %
Elongation @ Break		
M.D.	ASTM D 882	53 %
T.D.	ASTM D 882	71 %
Youngs Modulus		
M.D.	D 882	691 MPa (100160 psi)
T.D.	D 882	639 MPa (92687 psi)

[a]*Unless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.*
[b]*Unless noted otherwise, the test method is ASTM.*
[c]*Units are in SI or US customary units.*

Eastman Medical Disclaimer

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 in order to ensure safety and compliance with requirements of the United States Food and Drug Administration (FDA) or other international regulatory agencies. Eastman Chemical Company products have not been designed for nor are they promoted for end uses that would be categorized by either 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. Eastman Chemical Company products offered for the medical market have met selected FDA-Modified ISO-10993, Part 1 “Biological Evaluation of Medical Devices” tests with human tissue contact time of 30 days or less. The tests include: cytotoxicity, sensitization, irritation or intracutaneous reactivity, systemic toxicity (acute), subchronic toxicity (sub-acute), implantation, hemocompatibility. The Manufacturer 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 upon 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.

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