

Technical Data Sheet

Eastman Tritan™ copolyester LX151HF

Applications

- Bottles-fragrance pkg
- Closures-fragrance pkg
- Color cosmetics packaging
- Fragrance packaging
- Personal care & cosmetics packaging
- Personal care bottles
- Personal care packaging
- Skin care packaging

Key Attributes

- Ease of processing
- Excellent clarity
- Fast drying times
- Good chemical resistance
- Good heat resistance
- Improved flowability
- Outstanding impact resistance
- Quick cycle times

Product Description

Eastman Tritan™ LX151HF is a high flow grade of an amorphous copolyester with excellent appearance and clarity. Eastman Tritan™ LX151HF has viscosity reductions of 40-50% relative to standard grades of Eastman Tritan™. Eastman Tritan™ LX151HF contains a mold release derived from vegetable based sources. Its most outstanding features are excellent toughness, hydrolytic stability, and heat and chemical resistance. Tritan™ LX151HF was developed for the cosmetic, fragrance, and personal care markets. Tritan™ LX151HF can easily be converted into articles for application in consumer and personal care markets by injection molding, extrusion blow molding, and injection blow molding.

Typical Properties

Property ^a	Test Method ^b	Typical Value, Units ^c
General Properties		
Specific Gravity	D 792	1.18
Mold Shrinkage	D 955	0.005-0.007 mm/mm (0.005-0.007 in./in.)
Mechanical Properties		
Tensile Stress @ Yield	D 638	43 MPa (6200 psi)
Tensile Stress @ Break	D 638	52 MPa (7500 psi)
Elongation @ Yield	D 638	7 %
Elongation @ Break	D 638	210 %
Tensile Modulus	D 638	1575 MPa (2.28 x 10 ⁵ psi)
Flexural Modulus	D 790	1575 MPa (2.28 x 10 ⁵ psi)
Flexural Yield Strength	D 790	64 MPa (9300 psi)
Rockwell Hardness, R Scale	D 785	111
Izod Impact Strength, Notched		
@ 23°C (73°F)	D 256	860 J/m (16.1 ft·lbf/in.)
@ -40°C (-40°F)	D 256	110 J/m (2.1 ft·lbf/in.)
Impact Strength, Unnotched		
@ 23°C (73°F)	D 4812	NB
@ -40°C (-40°F)	D 4812	NB
Impact Resistance (Puncture), Energy @ Max. Load		
@ 23°C (73°F)	D 3763	53 J (39 ft·lbf)
@ -40°C (-40°F)	D 3763	57 J (42 ft·lbf)
Optical Properties		
Total Transmittance	D 1003	91 %
Haze	D 1003	<1 %
Thermal Properties		
Deflection Temperature		
@ 0.455 MPa (66 psi)	D 648	94 °C (201 °F)

@ 1.82 MPa (264 psi)

D 648

81 °C (178 °F)

Typical Processing Conditions

Drying Temperature	88 °C (190 °F)
Drying Time	4-6 hrs
Processing Melt Temperature	260-282 °C (500-540 °F)
Mold Temperature	38-66 °C (100-150 °F)

^aUnless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.

^bUnless noted otherwise, the test method is ASTM.

^cUnits are in SI or US customary units.

Technical Disclaimer

Eastman makes no representation and disclaims any warranty that the material in any particular shipment will conform exactly to the values given. Values as well as the performance of the final molded article may be affected by various factors such as the part design, mold design or tooling, drying, processing conditions as well as coloring or pigmentation of the product. No warranty of merchantability or fitness for use is made, and nothing herein waives any of the Seller's conditions of sale. You must make your own determination of the suitability of this product in your specific application due to the many factors (e.g. design, processing and conditions of use) that affect the performance of the final molded article. Suitability of use should be evaluated with appropriate testing and analysis. The processing melt temperature and mold temperature refer to the actual resin melt temperature and actual mold surface temperature respectively. Consider overall resin residence time, part shot size utilization and part geometry to set appropriate processing melt temperature and mold temperature in order to minimize IV loss and maximize molded part performance.

Comments

Properties reported here are based on limited testing. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

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