

Product Data Sheet

Eastman Tritan™ Copolyester TFX1021

Application/Uses

- Computer and Video Game accessories/peripherals
- Personal care devices
- Portable consumer electronic devices
- Small appliance housings

Key Attributes

- Ease of decoration
- Ease of processing
- Ease of secondary operations
- Excellent aesthetics and gloss
- Excellent hydrolytic stability
- Good chemical resistance
- Good heat resistance
- Good melt flowability
- Good toughness

Product Description

Eastman Tritan™ Copolyester TFX1021 is an amorphous, opaque material offering UL-94 V2 performance with outstanding aesthetics and gloss. Eastman Tritan™ Copolyester TFX1021 has many outstanding features that include excellent toughness, hydrolytic stability, heat resistance, chemical resistance, and melt flowability. Eastman Tritan™ Copolyester TFX1021 offers improved design flexibility needed in portable consumer electronic devices. Eastman Tritan™ Copolyester TFX1021 has passed FDA/ISO 10993 testing for skin sensitization. Eastman Tritan™ Copolyester TFX1021 contains a non-halogenated flame retardant.

Typical Properties

Property ^a	Test ^b Method	Typical Value, Units ^c
General Properties		
Specific Gravity	D 792	1.19
Mold Shrinkage	D 955	0.005-0.007 mm/mm (0.005-0.007 in./in.)
Mechanical Properties		
Tensile Stress @ Yield	D 638	42 MPa (6100 psi)
Tensile Stress @ Break	D 638	46 MPa (6670 psi)
Elongation @ Yield	D 638	6%
Elongation @ Break	D 638	133%
Tensile Modulus	D 638	1611 MPa (2.36 x 10 ⁵ psi)
Flexural Modulus	D 790	1743 MPa (2.52 x 10 ⁵ psi)
Rockwell Hardness, R Scale	D 785	109
Izod Impact Strength, Notched @ 23°C	D 256	436 J/m (7.7 ft·lbf/in.)

(73°F)			
Impact Strength, Unnotched	@ 23°C (73°F)	D 4812	NB

Thermal Properties

Deflection Temperature		
@ 0.455 MPa (66 psi)	D 648	94°C (201°F)
@ 1.82 MPa (264 psi)	D 648	83°C (181°F)
Flammability		
@ Thickness 3.0 mm	UL 94	V2
@ Thickness 1.5 mm	UL 94	V2

Electrical Properties

Dielectric Constant RT		
@ Thickness 1.5 mm	1 kHz	3.31
@ Thickness 1.5 mm	1 MHz	3.04

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)

^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.

Comments

Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

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