

# Product Data Sheet

## Eastman Tritan™ Copolyester TX2001

### Application/Uses

- Appliances
- Consumer and durable goods
- Housewares
- Small appliances

### Key Attributes

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

### Product Description

Eastman Tritan™ TX2001 is an amorphous copolyester with excellent appearance and clarity. Tritan™ TX2001 contains a mold release derived from vegetable based sources. Its most outstanding features are excellent toughness, hydrolytic stability, and heat and chemical resistance. This new-generation copolyester can also be molded into various applications without incorporating high levels of residual stress. Combined with Tritan™ copolyester's outstanding chemical resistance and hydrolytic stability, these features give molded products enhanced durability in the dishwasher environment, which can expose products to high heat, humidity, and aggressive cleaning agents. Tritan™ TX2001 copolyester may be used in repeated use food contact articles under United States Food and Drug Administration (FDA) regulations. Tritan™ TX2001 copolyester is certified to NSF/ANSI Standard 51 for Food Equipment Materials and is also certified to NSF/ANSI Standard 61 – Drinking Water System Components-Health Effects.

### Typical Properties (Preliminary)

Property <sup>a</sup>	Test <sup>b</sup> Method	Typical Value, Units <sup>c</sup>
<b>General Properties</b>		
Specific Gravity	D 792	1.17
Mold Shrinkage	D 955	0.005-0.007 mm/mm (0.005-0.007 in./in.)
<b>Mechanical Properties</b>		
Tensile Stress @ Yield	D 638	44 MPa (6400 psi)
Tensile Stress @ Break	D 638	53 MPa (7700 psi)
Elongation @ Yield	D 638	7%
Elongation @ Break	D 638	140%
Tensile Modulus	D 638	1585 MPa (2.28 x 10 <sup>5</sup> psi )

Flexural Modulus	D 790	1585 MPa (2.28 x 10 <sup>5</sup> psi )
Flexural Yield Strength	D 790	66 MPa (9600 psi)
Rockwell Hardness, R Scale	D 785	115
Izod Impact Strength, Notched @ 23°C (73°F)	D 256	650 J/m (12.2 ft·lbf/in.)
Impact Strength, Unnotched @ 23°C (73°F)	D 4812	NB

### Mechanical Properties (ISO Method)

Tensile Strength @ Yield	ISO 527	45 MPa
Tensile Stress @ Break	ISO 527	49 MPa
Elongation @ Yield	ISO 527	7%
Elongation @ Break	ISO 527	130%
Tensile Modulus	ISO 527	1624 MPa
Flexural Modulus	ISO 178	1531 MPa
Izod Impact Strength, Notched @ 23°C	ISO 180	66 kJ/m <sup>2</sup>
@ -40°C	ISO 180	14 kJ/m <sup>2</sup>

### Thermal Properties

Deflection Temperature @ 0.455 MPa (66 psi)	D 648	109°C (228°F)
@ 1.82 MPa (264 psi)	D 648	92°C (198°F)

### Optical Properties

Total Transmittance	D 1003	92%
Haze	D 1003	<1%

### 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)

<sup>a</sup> Unless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.

<sup>b</sup> Unless noted otherwise, the test method is ASTM.

<sup>c</sup> Units are in SI or US customary units.

### 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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