Tritan™ TX1001 Copolyester

# Eastman Chemical Company

# **Product Description:**

Eastman Tritan™ TX1001 is an amorphous copolyester with excellent appearance and clarity. EastmanTritan™ TX1001 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 detergents. Tritan™ TX1001 copolyester may be used in repeated use food contact articles under United States Food and Drug Administration (FDA) regulations. Tritan™ TX1001 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.

- Properties
- Processing
- Literature
- Visual Analysis
- Curve Data
- Where to Buy
- Units: English

#### General

Material Status •	Commercial: Active				
Literature <sup>1</sup>	Processing - Injection Molding Guide (English)  Technical Datasheet (English)				
UL Yellow Card <sup>2</sup>	E118289-100074991				
Search for UL Yellow Card	Eastman Chemical Company  Tritan™				
• Availability	Africa & Middle East  • Europe • North America  Asia Pacific				

Additive	•	Mold Release

Tensile Elongation Yield, 73°F

	•	Amorphous	•	Food Acceptab	d Contact lle	•	High Heat Resistance	
•	•	Chemical Resis	• stant	Good Mold Release		•	High Impact Resistance	
Features	•	Copolymer Durable	•	Good Processal		•	Hydrolytically Stable	
	•				d Toughn	ess Pleasing Surface		
			•	High	Clarity		Appearance	
Uses	•	Appliances • Household Goods						
Uses	Ар	Consumer plications	•	Whit Small Ap	e Goods pliances	&		
Agency Ratings	Un	FDA Food Con specified Rating	tact, •	NSF	STD-51	•	NSF STD-61	
Processing Method	•	Injection Mold	ing					
Physical			Non	ninal Value	Unit	Test	Method	
Density / Specific Gravity				1.18		AST	M D792	
Molding Shrinkage - Flow			5.0E-3	3 to 7.0E-3	in/in	AST	M D955	
Hardness			Nominal ValueUnit 112		Test Method			
Rockwell Hardness (R-Scale, 73°F)					ASTM D785			
Mechanical	o=\		Nor	minal Value			Method	
Tensile Modulus (73°F) Tensile Strength			225000psi /		ASTM	ASTM D638, ISO 527-2		
Yield, 73°F Break, 73°F Break, 73°F				6240 7690 8410	Opsi		D638, ISO 527-2 D638 27-2	
Tarada Element					-			

ASTM D638

6.0%

Yield, 73°F	7.0%	ISO 527-2			
Break, 73°F	210%	ASTM	D638		
Break, 73°F	190%	ISO 52	27-2		
Flexural Modulus					
73°F	225000psi	ASTM D790			
73°F	217000psi	ISO 178			
Flexural Stress	·				
73°F	8560psi	ISO 17	78		
Yield, 73°F	8990psi	ASTM	D790		
Impact	Nominal ValueUnit	Test M	1ethod		
Notched Izod Impact					
73°F	18ft·lb/in	18ft·lb/in ASTM			
-40°F	9.5ft·lb/in <sup>2</sup>	9.5ft·lb/in <sup>2</sup> ISO 180			
73°F	44ft·lb/in²	44ft·lb/in <sup>2</sup> ISO 180			
Unnotched Izod Impact (73°F)	No Break	Break ASTM [			
Thermal	Nominal Valu	Nominal ValueUnit			
Deflection Temperature Under Load			ASTM D648		
66 psi, Unannealed	210°F				
264 psi, Unannealed	18	5°F			
Optical	Nominal Value	Nominal ValueUnit			
Transmittance (Total)	90.0%	6	ASTM D1003		
Haze	< 1.0%	6	ASTM D1003		
Injection	Nominal ValueUnit				
Drying Temperature	190°F				
Drying Time	4.0 to 6.0hr				
Processing (Melt) Temp	500 to 540°F				
Mold Temperature	100 to 151°F				
Notes					

### Notes

<sup>1</sup>These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup>A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

## **Revision History**

Added to Prospector: May 2008

Last Updated: 6/12/2013

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