

Tritan™ TX1800

Copolyester
Eastman Chemical Company

Message:

Eastman Tritan™ Copolyester TX1800 is an amorphous copolyester specifically developed for use in blow molding applications. Its most outstanding features are excellent toughness, hydrolytic stability, heat resistance, and chemical resistance. In addition, this new generation copolyester offers excellent appearance and clarity. Eastman Tritan™ Copolyester TX1800 may be used in repeated use food contact articles under United States Food and Drug Administration (FDA) regulations. This product is certified to NSF/ANSI Standard 51 for Food Equipment Materials.

General Information			
UL YellowCard	E118289-102420137		
Additive	demoulding		
Features	Impact resistance, good		
	Workability, good		
	Good chemical resistance		
	Heat resistance, high		
	Definition, high		
	Good toughness		
	Compliance of Food Exposure		
	Hydrolysis stability		
	amorphous		
Uses	Excellent appearance		
Agency Ratings	Blow molding applications		
	Consumer goods application field		
Agency Ratings	FDA Food Exposure, Not Rated		
	NSF 51		
Processing Method	Injection Stretch Blow Molding		
	Blow molding		
	Extrusion blow molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.18	g/cm³	ASTM D792
Molding Shrinkage - Flow	0.60	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, 23°C)	110		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			

23°C	1610	MPa	ASTM D638
23°C	1570	MPa	ISO 527-2
Tensile Strength			
Yield, 23°C	45.0	MPa	ASTM D638, ISO 527-2
Fracture, 23°C	52.0	MPa	ASTM D638
Fracture, 23°C	51.0	MPa	ISO 527-2
Tensile Elongation			ASTM D638, ISO 527-2
Yield, 23°C	7.0	%	ASTM D638, ISO 527-2
Fracture, 23°C	140	%	ASTM D638, ISO 527-2
Flexural Modulus			
23°C	1520	MPa	ASTM D790
23°C	1490	MPa	ISO 178
Flexural Stress			
23°C	60.0	MPa	ISO 178
Yield, 23°C	64.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	840	J/m	ASTM D256
-40°C	12	kJ/m ²	ISO 180
23°C	78	kJ/m ²	ISO 180
Unnotched Izod Impact (23°C)	No Break		ASTM D4812
Instrumented Dart Impact			ASTM D3763
-40°C, Energy at Maximum Load	67.0	J	ASTM D3763
0°C, Energy at Maximum Load	65.0	J	ASTM D3763
23°C, Energy at Maximum Load	62.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	101	°C	ASTM D648
1.8 MPa, not annealed	85.0	°C	ASTM D648
Optical	Nominal Value	Unit	Test Method
Transmittance (Total)	91.0	%	ASTM D1003
Haze	< 1.0	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	88.0	°C	
Drying Time	4.0 - 6.0	hr	
Injection instructions			
ISBM Melt Temperature: 260 to 280°CISBM Injection Mold Temperature: 40 to 65°CISBM Blow Mold Temperature: 35 to 55°C			
Extrusion	Nominal Value	Unit	
Drying Temperature	88.0	°C	
Drying Time	4.0 - 6.0	hr	
Extrusion instructions			
EBM Melt Temperature: 235 to 255°CCEBM Blow Mold Temperature: 15 to 50°C			

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