Eastar™ 6763

Copolyester

Eastman Chemical Company

Message:

Eastar™ copolyester 6763 is a clear, amorphous material. Because of its clarity, toughness and good melt strength at processing temperatures, it is useful in a variety of processing techniques including film and sheet extrusion. Eastar™ Copolyester 6763 may be colored using color concentrates, dry colors or liquid colorants.
This product has been GREENGUARD INDOOR AIR QUALITY CERTIFIED®.
The GREENGUARD INDOOR AIR QUALITY CERTIFIED® Mark is a registered certification mark used under license through the GREENGUARD Environmental Institute (GEI). GEI is an industry-independent, non-profit organization that oversees the GREENGUARD Certification Program. The GREENGUARD Certification Program is an industry independent, third-party testing program for low-emitting products and materials for indoor environments. For more information about GEI and to obtain printable certificates for Eastman™ Copolyesters, visit www.greenguard.org. Choose Eastman Chemical Company under the Manufacturer category and click search to display a list of our products.
This product has been CRADLE TO CRADLE CERTIFIED Silver.
The CRADLE TO CRADLE CERTIFIED Mark is a registered certification mark used under license through McDonough Braungart Design Chemistry (MBDC). MBDC is a global sustainability consulting and product certification firm. The CRADLE TO CRADLE® framework moves beyond the traditional goal of reducing the negative impacts of commerce ('eco-efficiency'), to a new paradigm of increasing its positive impacts ('eco-effectiveness'). At its core, Cradle to Cradle design perceives the safe and productive processes of nature's 'biological metabolism' as a model for developing a 'technical metabolism' flow of industrial materials. Product components can be designed for continuous recovery and reutilization as biological and technical nutrients within these metabolisms. For more information about MBDC and to obtain printable certificates for Eastman Copolyesters, visit www.mbdc.com. Choose Eastman Chemical Company under Company Name in C2C Certified products to display a list of our products.

General Information	
UL YellowCard	E118289-101981969
Features	Amorphous
	E-beam Sterilizable
	Good Colorability
	Good Melt Strength
	Good Toughness
	High Clarity
	Radiation Sterilizable
Uses	Containers
	Cosmetic Packaging
	Electrical/Electronic Applications
	Film
	Food Packaging
	Furniture
	Labware
	Laminates
	Medical/Healthcare Applications
	Packaging
	Sheet
	Shrink Wrap
	Sporting Goods

	Thin-walled Packaging
	Toys
	Writing Instruments
Appearance	Clear/Transparent
Forms	Pellets
Processing Method	Film Extrusion
	Sheet Extrusion

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.27	g/cm³	ASTM D792, ASTM D1505
23°C	1.27	g/cm³	ISO 1183/D
Water Absorption (23°C, 24 hr)	0.13	%	ASTM D570, ISO 62
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness			
R-Scale, 23°C	106		ASTM D785
R-Scale, 23°C	109		ISO 2039-2
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (23°C)	2100	MPa	ASTM D638, ISO 527-2
Tensile Strength			ASTM D638, ISO 527-2
Yield, 23°C	50.0	MPa	
Break, 23°C	28.0	MPa	
Tensile Elongation			
Break, 23°C	130	%	ASTM D638
Break, 23°C	100	%	ISO 527-2
Flexural Modulus			
23°C	2100	MPa	ASTM D790
23°C	2000	MPa	ISO 178
Flexural Stress			
23°C	68.0	MPa	ISO 178
Yield, 23°C	70.0	MPa	ASTM D790
Tear Resistance			ASTM D2582
MD : 23°C, 250.0 µm	93	N	
TD : 23°C, 250.0 µm	93	N	
Carbon Dioxide Permeability (23°C, 250.0 µm)	49	cm³·mm/m²/atm/24 hr	ASTM D1434
Tear Propagation Resistance [1]			ASTM D1938
MD : 23°C, 250.0 µm	36	kN/m	
TD : 23°C, 250.0 µm	36	kN/m	
Films	**Nominal Value**	**Unit**	**Test Method**
Film Thickness - Tested	250	µm	

Secant Modulus			ASTM D882
MD : 250 µm	1900	MPa	
TD : 250 µm	1900	MPa	
Tensile Strength			ASTM D882
MD : Yield,250 µm	52.0	MPa	
TD : Yield,250 µm	52.0	MPa	
MD : Break, 250 µm	59.0	MPa	
TD : Break, 250 µm	55.0	MPa	
Tensile Elongation			ASTM D882
MD : Yield, 250 µm	4.0	%	
TD : Yield, 250 µm	4.0	%	
MD : Break, 250 µm	400	%	
TD : Break, 250 µm	400	%	
Dart Drop Impact [2]			ASTM D1709A
-18°C, 250 µm	500	g	
23°C, 250 µm	400	g	
Elmendorf Tear Strength			ASTM D1922
MD : 250 µm	1400	g	
TD : 250 µm	1700	g	
Trouser Tear Resistance [3]			ISO 6383-1
MD	36.0	N/mm	
TD	36.0	N/mm	
Oxygen Permeability (23°C, 250 µm, 50% RH)	10	$cm^3 \cdot mm/m^2/atm/24\ hr$	ASTM D3985
Water Vapor Transmission Rate (38°C, 100% RH, 250 µm)	7.0	$g/m^2/24\ hr$	ASTM F1249

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
-40°C	37	J/m	ASTM D256
23°C	100	J/m	ASTM D256
-40°C	4.2	kJ/m^2	ISO 180/1A
23°C	6.2	kJ/m^2	ISO 180/1A
Unnotched Izod Impact			
-40°C, 3.20 mm	No Break		ASTM D4218
-30°C, 3.20 mm	No Break		ASTM D4218
-20°C, 3.20 mm	No Break		ASTM D4218
23°C, 3.20 mm	No Break		ASTM D4218
-40°C [4]	No Break		ISO 180/1U
-30°C [5]	No Break		ISO 180/1U
-20°C [6]	No Break		ISO 180/1U
23°C [7]	No Break		ISO 180/1U
Instrumented Dart Impact			
-40°C, 2.50 mm, Energy at Peak Load	41.0	J	ASTM D3763

-40°C, 3.20 mm, Energy at Peak Load	50.0	J	ASTM D3763
23°C, 2.50 mm, Energy at Peak Load	28.0	J	ASTM D3763
23°C, 3.20 mm, Energy at Peak Load	33.0	J	ASTM D3763
-40°C, 2.50 mm, Energy to Peak Force	35.0	J	ISO 6603-2
-40°C, 3.20 mm, Energy to Peak Force	36.0	J	ISO 6603-2
23°C, 2.50 mm, Energy to Peak Force	40.0	J	ISO 6603-2
23°C, 3.20 mm, Energy to Peak Force	44.0	J	ISO 6603-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	70.0	°C	
1.8 MPa, Unannealed	64.0	°C	
Glass Transition Temperature	80.0	°C	DSC
Vicat Softening Temperature	85.0	°C	ASTM D1525
CLTE - Flow (-30 to 40°C)	5.1E-5	cm/cm/°C	ASTM D696
Specific Heat			DSC
60°C	1300	J/kg/°C	
100°C	1760	J/kg/°C	
150°C	1880	J/kg/°C	
200°C	1970	J/kg/°C	
250°C	2050	J/kg/°C	
Thermal Conductivity (23°C)	0.21	W/m/K	ASTM C177
Electrical	**Nominal Value**	**Unit**	**Test Method**
Dielectric Strength [8] (23°C)	16	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
23°C, 1 kHz	2.60		
23°C, 1 MHz	2.40		
Dissipation Factor			ASTM D150
23°C, 1 kHz	5.0E-3		
23°C, 1 MHz	0.020		
Arc Resistance	158	sec	ASTM D495
Optical	**Nominal Value**	**Unit**	**Test Method**
Gloss (45°, 250 µm)	108		ASTM D2457
Transmittance			ASTM D1003
Total, 250 µm	91.0	%	
Regular, 250 µm	89.0	%	
Clarity (250 µm)	85.0		ASTM D1746
Haze (250 µm)	0.80	%	ASTM D1003
NOTE			
1.	Split Tear Method, 254 mm/min		
2.	12.7 mm dia. head, 127 mm dia. clamp, 600 mm drop		
3.	200 mm/min		

4.	4 mm
5.	4 mm
6.	4 mm
7.	4 mm
8.	500 V/sec, Method A (Short-Time)

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

WECHAT