

Eastman Spectar® Clear Copolyester for Thermoforming

Category : Polymer , Thermoplastic , Polyester, TP

Material Notes:

Applications:Decorative Light-Transmitting PanelsHeavy gauge sheet displays**Key Attributes:**Easy to print and decorateExcellent clarityExcellent thermoforming characteristicsGood chemical resistanceOdorlessOutstanding impact resistanceOutstanding toughness allows downgaugingResists chipping and cracking**Versatile - easy to fabricate****Product Description:** Eastman Spectar Clear is a copolyester, developed by Eastman to achieve measurably improved sheet clarity and edge color while maintaining high performance characteristics. It offers the thermoformability and ease of fabrication of Eastman Spectar copolyester along with significantly improved clarity. Eastman Spectar Clear also offers approximately double the notch impact strength, 50% higher instrumented impact strength and better chemical resistance when compared to traditional Spectar Copolyester. This product has been GREENGUARD INDOOR AIR QUALITY CERTIFIED®.Information provided by Eastman.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Eastman-Spectar-Clear-Copolyester-for-Thermoforming.php

Physical Properties	Metric	English	Comments
Density	1.23 g/cc	0.0444 lb/in ³	ASTM D1505
Water Absorption	0.19 %	0.19 %	Immersion; ASTM D570
Viscosity Measurement	0.73	0.73	Inherent; EMN-A-AC-G-V-1
Thickness	3000 microns	118 mil	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	107	107	ASTM D785
Tensile Strength at Break	53.0 MPa	7690 psi	ASTM D638
Tensile Strength, Yield	48.0 MPa	6960 psi	ASTM D638
Elongation at Break	340 %	340 %	ASTM D638
Elongation at Yield	5.0 %	5.0 %	ASTM D638
Tensile Modulus	1.80 GPa	261 ksi	ASTM D638
Flexural Strength	71.0 MPa @Strain 5.00 %	10300 psi @Strain 5.00 %	ASTM D790
Flexural Modulus	2.00 GPa	290 ksi	ASTM D790
Izod Impact, Notched	0.830 J/cm @Temperature -30.0 °C	1.55 ft-lb/in @Temperature -22.0 °F	ASTM D256
	1.13 J/cm	2.12 ft-lb/in	

Mechanical Properties	Metric @ Temperature 0.000 °C	English @ Temperature 32.0 °F	ASTM D256 Comments
	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ASTM D256
Izod Impact, Unnotched	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ASTM D4812
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ASTM D4812
Puncture Energy	41.0 J @Temperature 23.0 °C	30.2 ft-lb @Temperature 73.4 °F	At Max load; ASTM D3763
	42.0 J @Temperature 0.000 °C	31.0 ft-lb @Temperature 32.0 °F	At Max load; ASTM D3763
	52.0 J @Temperature -30.0 °C	38.4 ft-lb @Temperature -22.0 °F	At Max load; ASTM D3763

Thermal Properties	Metric	English	Comments
CTE, linear	76.2 µm/m-°C	42.3 µin/in-°F	ASTM D696
Deflection Temperature at 0.46 MPa (66 psi)	77.0 °C	171 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	73.0 °C	163 °F	ASTM D648
Vicat Softening Point	86.0 °C	187 °F	ASTM D1525
Flammability, UL94	V-2	V-2	

Optical Properties	Metric	English	Comments
Haze	0.50 %	0.50 %	ASTM D1003
Gloss	150 %	150 %	at 60°; ASTM D2457
Yellow Index	0.81 %	0.81 %	ASTM E313
Transmission, Visible	91 %	91 %	Total; ASTM D1003

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+16 ohm-cm	1.00e+16 ohm-cm	ASTM D257
Surface Resistivity per Square	1.00e+17 ohm	1.00e+17 ohm	ASTM D257

Arc Resistance Electrical Properties	130 sec Metric	130 sec English	ASTM D495 Comments
Descriptive Properties	Value		Comments
Static Decay	Failed to discharge		ASTM D4470

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