Styron EMERGE™ 9100 CR Polycarbonate (PC) / Polyethylene Terephthalate (PET)

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate/PET Polyester Blend , Polyester, TP , Polyethylene Terephthalate (PET)

Material Notes:

Overview: EMERGE™ PC/PET 9100 CR advanced resin is a polycarbonate blend with excellent chemical resistance. This grade was designed for use in medical equipment housings and can withstand repeated exposure to a variety of cleaners and disinfectants commonly used in hospitals. This grade has good aesthetics and excellent toughness. Applications:Medical device housings or enclosuresUL Listing for HBInformation provided by Styron

Order this product through the following link:
http://www.lookpolymers.com/polymer_Styron-EMERGE-9100-CR-Polycarbonate-PC-Polyethylene-Terephthalate-PET.php

Physical Properties	Metric	English	Comments
Density	1.23 g/cc	0.0444 lb/in³	ASTM D792
Linear Mold Shrinkage, Flow	0.0060 - 0.0090 cm/cm	0.0060 - 0.0090 in/in	ASTM D955
Linear Mold Shrinkage, Transverse	0.0050 - 0.0080 cm/cm	0.0050 - 0.0080 in/in	ASTM D955
Melt Flow	8.5 g/10 min @Load 5.00 kg, Temperature 260 °C	8.5 g/10 min @Load 11.0 lb, Temperature 500 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	111 @Thickness 3.20 mm	111 @Thickness 0.126 in	Injection Molded; ASTM D785
Tensile Strength at Break	56.2 MPa @Thickness 3.20 mm	8150 psi @Thickness 0.126 in	50 mm/min, Injection Molded; ASTM D638
Tensile Strength, Yield	50.0 MPa @Thickness 3.20 mm	7250 psi @Thickness 0.126 in	50 mm/min, Injection Molded; ASTM D638
Elongation at Break	150 % @Thickness 3.20 mm	150 % @Thickness 0.126 in	50 mm/min, Injection Molded; ASTM D638
Elongation at Yield	4.7 % @Thickness 3.20 mm	4.7 % @Thickness 0.126 in	50 mm/min, Injection Molded; ASTM D638
Tensile Modulus	2.21 GPa @Thickness 3.20 mm	321 ksi @Thickness 0.126 in	5 mm/min, Injection Molded; ASTM D638
Flexural Strength	77.2 MPa @Thickness 3.20 mm	11200 psi @Thickness 0.126 in	1.3 mm/min, Injection Molded; ASTM D790

Mechanical Properties	Metric	English	Comments
Flexural Modulus	2.10 GPa @Thickness 3.20 mm	305 ksi @Thickness 0.126 in	1.3 mm/min, Injection Molded; ASTM D790
Izod Impact, Notched	7.50 J/cm @Thickness 3.20 mm, Temperature -30.0 °C	14.1 ft-lb/in @Thickness 0.126 in, Temperature -22.0 °F	Injection Molded; ASTM D256
	9.50 J/cm @Thickness 3.20 mm, Temperature 23.0 °C	17.8 ft-lb/in @Thickness 0.126 in, Temperature 73.4 °F	Injection Molded; ASTM D256
Dart Drop, Total Energy	46.3 J @Thickness 3.20 mm, Temperature 23.0 °C	34.1 ft-lb @Thickness 0.126 in, Temperature 73.4 °F	Injection Molded, Peak Energy; ASTM D3763
	55.4 J @Thickness 3.20 mm, Temperature -40.0 °C	40.9 ft-lb @Thickness 0.126 in, Temperature -40.0 °F	Injection Molded, Peak Energy; ASTM D3763
	63.3 J @Thickness 3.20 mm, Temperature 23.0 °C	46.7 ft-lb @Thickness 0.126 in, Temperature 73.4 °F	Injection Molded, Total Energy; ASTM D3763
	80.2 J @Thickness 3.20 mm, Temperature -40.0 °C	59.2 ft-lb @Thickness 0.126 in, Temperature -40.0 °F	Injection Molded, Total Energy; ASTM D3763

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	117 °C	243 °F	Unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	87.2 °C	189 °F	Unannealed; ASTM D648
Vicat Softening Point	144 °C @Load 1.02 kg	291 °F @Load 2.25 lb	Rate B (120°C/h); ASTM D1525
Flammability, UL94	HB @Thickness 1.00 mm	HB @Thickness 0.0394 in	

Processing Properties	Metric	English	Comments
Melt Temperature	249 - 282 °C	480 - 540 °F	
Mold Temperature	43.3 - 65.6 °C	110 - 150 °F	
Drying Temperature	121 °C	250 °F	
Dry Time	3.00 - 4.00 hour	3.00 - 4.00 hour	

Processing Properties	Metric	English	Comments

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com
Email : sales@lookpolymers.com
Tel : +86 021-51131842
Mobile : +86 13061808058
Skype : lookpolymers
Address : United North Road 215,Fengxian District, Shanghai City,China