Covestro Apec® 1697 High-Heat Polycarbonate

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate, High Heat , Polycarbonate, Molded , Polycarbonate, UV Stabilized

Material Notes:

This linear, amorphous copolycarbonate is most suitable for applications that must withstand high temperatures and exhibit toughness, impact resistance and high transparency. These properties, along with good dimensional stability, weatherability and flowability, allow Apec® to be utilized as a replacement for glass, metal or standard polycarbonate in high-heat applications.Main characteristics:• High toughness• Heat resistance• Glass-like transparency• High dimensional accuracy and stability• Good metallization• Good flowability• Good electrical properties.Grade characteristics:• UV stabilized• Low viscosity• Easy releaseAs of 1 September 2015, Bayer MaterialScience was separated from Bayer AG and officially adopted its new name – Covestro.

Order this product through the following link:
http://www.lookpolymers.com/polymer_Covestro-Apec-1697-High-Heat-Polycarbonate.php

Physical Properties	Metric	English	Comments
Density	1.18 g/cc	0.0426 lb/in³	ISO 1183-1
Moisture Absorption at Equilibrium	0.12 %	0.12 %	ISO 62, 50% RH
Water Absorption at Saturation	0.30 %	0.30 %	ISO 62
Melt Flow	46 g/10 min @Load 2.16 kg, Temperature 330 °C	46 g/10 min @Load 4.76 lb, Temperature 626 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	68.0 MPa	9860 psi	50 mm/min; ISO 527-1,-2
Elongation at Break	>= 50 %	>= 50 %	Nominal, 50 mm/min; ISO 527-1,-2
Elongation at Yield	6.2 %	6.2 %	50 mm/min; ISO 527-1,-2
Tensile Modulus	2.40 GPa	348 ksi	1 mm/min; ISO 527-1,-2
Charpy Impact Unnotched	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ISO 179-1eU
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ISO 179-1eU

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	65.0 µm/m-°C @Temperature 23.0 - 55.0 °C	36.1 µin/in-°F @Temperature 73.4 - 131 °F	ISO 11359-1,-2

Thermal Properties	Metric	English	Comments
CTE, linear, Transverse to Flow	65.0 µm/m-°C @Temperature 23.0 - 55.0 °C	36.1 µin/in-°F @Temperature 73.4 - 131 °F	ISO 11359-1,-2
Maximum Service Temperature, Air	200 °C	392 °F	
Deflection Temperature at 0.46 MPa (66 psi)	149 °C	300 °F	ISO 75-1,-2
Deflection Temperature at 1.8 MPa (264 psi)	137 °C	279 °F	ISO 75-1,-2
Vicat Softening Point	157 °C @Load 5.10 kg	315 °F @Load 11.2 lb	120°C/h; ISO 306
Minimum Service Temperature, Air	-30.0 °C	-22.0 °F	
UL RTI, Electrical	140 °C	284 °F	UL 746B
UL RTI, Mechanical with Impact	130 °C	266 °F	UL 746B
UL RTI, Mechanical without Impact	140 °C	284 °F	UL 746B
Flammability, UL94	HB @Thickness 1.50 mm	HB @Thickness 0.0591 in	
	HB @Thickness 3.00 mm	HB @Thickness 0.118 in	

Optical Properties	Metric	English	Comments
Refractive Index	1.578	1.578	Procedure A; ISO 489
Transmission, Visible	89 % @Thickness 1.00 mm	89 % @Thickness 0.0394 in	ISO 13468-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+17 ohm-cm	1.00e+17 ohm-cm	IEC 60093
Surface Resistance	1.00e+16 ohm	1.00e+16 ohm	IEC 60093
Dielectric Constant	2.9 @Frequency 1.00e+6 Hz	2.9 @Frequency 1.00e+6 Hz	IEC 60250
	3.0 @Frequency 100 Hz	3.0 @Frequency 100 Hz	IEC 60250
Dielectric Strength	35.0 kV/mm	889 kV/in	IEC 60243-1

Electrical Properties	Metric @Thickness 1.00 mm	English @Thickness 0.0394 in	Comments
Dissipation Factor	0.0010 @Frequency 100 Hz	0.0010 @Frequency 100 Hz	IEC 60250
	0.0090 @Frequency 1.00e+6 Hz	0.0090 @Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	125 V	125 V	CTI M; Solution B; IEC 60112
	250 V	250 V	Solution A; IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	330 °C	626 °F	Injection molding; ISO 294
Mold Temperature	100 °C	212 °F	Injection molding; ISO 294
Injection Velocity	200 mm/sec	7.87 in/sec	ISO 294

Descriptive Properties	Value	Comments
Electrolytic Corrosion	A1	IEC 60426

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