Covestro Apec® DP9-9373 High-Heat Polycarbonate, General Purpose, UV-Stabilized (discontinued **)

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate, High Heat

Material Notes:

Information provided by Bayer Corporation, Plastics DivisionAs of 1 September 2015, Bayer MaterialScience was separated from Bayer AG and has officially adopted its new name – Covestro. This product was discontinued prior to the separation.

Order this product through the following link:
http://www.lookpolymers.com/polymer_Covestro-Apec-DP9-9373-High-Heat-Polycarbonate-General-Purpose-UV-Stabilized-nbspdiscontinued-.php

Physical Properties	Metric	English	Comments
Density	1.14 g/cc	0.0412 lb/in³	ASTM D792
Water Absorption	0.20 %	0.20 %	24 hour immersion; ASTM D570
Linear Mold Shrinkage	0.0080 - 0.0090 cm/cm	0.0080 - 0.0090 in/in	ASTM D955
Melt Flow	4.0 g/10 min @Load 2.16 kg, Temperature 330 °C	4.0 g/10 min @Load 4.76 lb, Temperature 626 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	91	91	ASTM D785
Hardness, Rockwell R	127	127	ASTM D785
Tensile Strength, Ultimate	57.0 MPa	8270 psi	ASTM D638
Tensile Strength, Yield	69.0 MPa	10000 psi	ASTM D638
Elongation at Break	70 %	70 %	ASTM D638
Elongation at Yield	6.0 %	6.0 %	ASTM D638
Tensile Modulus	2.20 GPa	319 ksi	ASTM D638
Flexural Yield Strength	86.0 MPa	12500 psi	ASTM D790
Flexural Modulus	2.28 GPa	331 ksi	ASTM D790
Izod Impact, Notched	0.800 J/cm @Thickness 3.17 mm	1.50 ft-lb/in @Thickness 0.125 in	ASTM D256
Izod Impact, Unnotched	NB	NB	ASTM D256
	NB @Temperature -40.0 °C	NB @Temperature -40.0 °F	ASTM D256

Mechanical Properties	Metric	English	Comments
Impact Test	62.0 J @Thickness 3.20 mm	45.7 ft-lb @Thickness 0.126 in	Instrumented Impact, Total Energy; 3.2 mm thick, 15 mph, 3 in. clamp, 0.5 in. dart; ASTM D3763

Thermal Properties	Metric	English	Comments
CTE, linear	70.0 µm/m-°C @Temperature 20.0 °C	38.9 µin/in-°F @Temperature 68.0 °F	ASTM D696
Deflection Temperature at 0.46 MPa (66 psi)	195 °C @Thickness 3.20 mm	383 °F @Thickness 0.126 in	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	179 °C @Thickness 3.17 mm	354 °F @Thickness 0.125 in	ASTM D648
Vicat Softening Point	205 °C	401 °F	Rate B; ASTM D1525
UL RTI, Electrical	150 °C @Thickness 1.50 mm	302 °F @Thickness 0.0591 in	UL746B
UL RTI, Mechanical with Impact	150 °C @Thickness 1.50 mm	302 °F @Thickness 0.0591 in	UL746B
UL RTI, Mechanical without Impact	150 °C @Thickness 1.50 mm	302 °F @Thickness 0.0591 in	UL746B
Flammability, UL94	HB @Thickness 1.50 mm	HB @Thickness 0.0591 in	
	HB @Thickness 1.50 mm	HB @Thickness 0.0591 in	
Oxygen Index	24 %	24 %	ASTM D2863

Optical Properties	Metric	English	Comments
Refractive Index	1.565	1.565	ASTM D542
Haze	1.0 % @Thickness 3.17 mm	1.0 % @Thickness 0.125 in	ASTM D1003
Transmission, Visible	88 % @Thickness 3.20 mm	88 % @Thickness 0.126 in	ASTM D1003

Electrical Properties	Metric	English	Comments
Electrical Resistivity	>= 1.00e+16 ohm-cm	>= 1.00e+16 ohm-cm	ASTM D257

Electrical Properties	Metric	English	Comments
Surface Resistance	>= 1.00e+16 ohm	>= 1.00e+16 ohm	ASTM D257
Dielectric Constant	2.8 @Frequency 60 Hz	2.8 @Frequency 60 Hz	ASTM D150
	2.8 @Frequency 1e+6 Hz	2.8 @Frequency 1e+6 Hz	ASTM D150
Dielectric Strength	>= 16.0 kV/mm @Thickness 3.17 mm	>= 406 kV/in @Thickness 0.125 in	ASTM D149
Dissipation Factor	0.0010 @Frequency 60 Hz	0.0010 @Frequency 60 Hz	ASTM D150
	0.010 @Frequency 1e+6 Hz	0.010 @Frequency 1e+6 Hz	ASTM D150

Processing Properties	Metric	English	Comments
Melt Temperature	325 - 350 °C	617 - 662 °F	

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