

## Covestro Apec® DP1-9354 Polycarbonate, Flame Retardant Grade

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate, Molded

### Material Notes:

Developmental product flame retardant: V-0/1,5mm (UL 94)V-0/3,0mm (UL 94)5VA/3mm (UL 94)softening temperature (VST/B 120)=185

°C only opaque colors available Preprocessing Max. Water content

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Covestro-Apec-DP1-9354-Polycarbonate-Flame-Retardant-Grade.php](http://www.lookpolymers.com/polymer_Covestro-Apec-DP1-9354-Polycarbonate-Flame-Retardant-Grade.php)

Physical Properties	Metric	English	Comments
Density	1.15 g/cc	0.0415 lb/in <sup>3</sup>	ISO 1183
	0.980 g/cc @Temperature 330 °C	0.0354 lb/in <sup>3</sup> @Temperature 626 °F	Melt
Water Absorption	0.30 %	0.30 %	Similar to ISO 62
Moisture Absorption at Equilibrium	0.12 %	0.12 %	Similar to ISO 62
Melt Flow	11 g/10 min	11 g/10 min	ISO 1133
	@Load 2.16 kg, Temperature 330 °C	@Load 4.76 lb, Temperature 626 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	72.0 MPa	10400 psi	ISO 527-1/-2
Elongation at Break	50 %	50 %	Nominal; ISO 527-1/-2
Elongation at Yield	6.8 %	6.8 %	ISO 527-1/-2
Tensile Modulus	2.40 GPa	348 ksi	ISO 527-1/-2
Charpy Impact Unnotched	NB	NB	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	70.0 µm/m-°C	38.9 µin/in-°F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	70.0 µm/m-°C	38.9 µin/in-°F	ISO 11359-1/-2
Specific Heat Capacity	1.70 J/g-°C	0.406 BTU/lb-°F	Melt
Thermal Conductivity	0.167 W/m-K	1.16 BTU-in/hr-ft <sup>2</sup> -°F	Melt

Thermal Properties	174 °C Metric	345 °F English	ISO 75-1/-2 Comments
Deflection Temperature at 0.46 MPa (66 psi)			
Deflection Temperature at 1.8 MPa (264 psi)	159 °C	318 °F	ISO 75-1/-2
Flammability, UL94	V-0	V-0	IEC 60695-11-10
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	5VA	5VA	IEC 60695-11-20
	@Thickness 3.00 mm	@Thickness 0.118 in	
Oxygen Index	35 %	35 %	ISO 4589-1/-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+13 ohm-cm	>= 1.00e+13 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+15 ohm	>= 1.00e+15 ohm	IEC 60093
Dielectric Constant	3.0	3.0	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	3.0	3.0	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	30.0 kV/mm	762 kV/in	IEC 60243-1
Dissipation Factor	0.00070	0.00070	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.0080	0.0080	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	225 V	225 V	IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	320 - 330 °C	608 - 626 °F	
	330 °C	626 °F	Injection Molding; ISO 294
Mold Temperature	100 °C	212 °F	Injection Molding; ISO 10724
	120 - 140 °C	248 - 284 °F	
Ejection Temperature	165 °C	329 °F	
Injection Velocity	200 mm/sec	7.87 in/sec	ISO 294

Descriptive Properties	Value	Comments
Availability	Europe	
	Near East/Africa	
	South and Central America	
Eff. thermal diffusivity (m <sup>2</sup> /s)	1E-07	
Form	Pellets	
Process	Injection Molding	

## Contact Songhan Plastic Technology Co.,Ltd.

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