

Bayblend® FR3040 EV

Covestro - Polycarbonates - *Polycarbonate + ABS*

General Information

Product Description

(PC+ABS)-Blend; flame retardant; good UV/light transmission (e 380 nm) at low wall thicknesses for UV/light curing adhesives; for thin-wall applications; UL recognition 94 V-0 (1.0 mm); only natural color (000000) available; for thin-wall applications

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• Flame Retardant
Features	• Flame Retardant • Good Light Transmission
Uses	• Thin-walled Parts
RoHS Compliance	• RoHS Compliant
Appearance	• Natural Color
ISO Designation	• PC+ABS FR(40)

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.19	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	17	cm ³ /10min	ISO 1133
Molding Shrinkage ²			ISO 2577
Across Flow : 464°F, 0.118 in	0.50 to 0.70	%	
Flow : 464°F, 0.118 in	0.50 to 0.70	%	
Water Absorption (Saturation, 73°F)	0.50	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	392000	psi	ISO 527-1/1
Tensile Stress (Yield, 73°F)	9430	psi	ISO 527-2/50
Tensile Stress (Break, 73°F)	7250	psi	ISO 527-2/50
Tensile Strain (Yield, 73°F)	4.0	%	ISO 527-2/50
Tensile Strain (Break, 73°F)	> 50	%	ISO 527-2/50
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength (73°F)	14	ft·lb/in ²	ISO 180/A
Unnotched Izod Impact Strength (73°F)	No Break		ISO 180
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	212	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	196	°F	ISO 75-2/A
Vicat Softening Temperature			
--	226	°F	ISO 306/B120
--	223	°F	ISO 306/B50
CLTE - Flow (73 to 131°F)	4.2E-5	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	4.4E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+17	ohms	IEC 60093
Volume Resistivity (73°F)	1.0E+17	ohms·cm	IEC 60093
Electric Strength (73°F, 0.0394 in)	890	V/mil	IEC 60243-1
Relative Permittivity			IEC 60250
73°F, 100 Hz	3.20		
73°F, 1 MHz	3.10		
Dissipation Factor			IEC 60250



73°F, 100 Hz	5.0E-3	
73°F, 1 MHz	7.5E-3	
Comparative Tracking Index (Solution A)	325 V	IEC 60112
Flammability	Nominal Value	Unit
Flame Rating (0.04 in)	V-0	UL 94
Fill Analysis	Nominal Value	Unit
Melt Viscosity (500°F, 1000 sec ⁻¹)	240 Pa·s	ISO 11443-A

Processing Information

	Nominal Value	Unit
Injection		
Drying Temperature - Dry Air Dryer	176	°F
Drying Time - Dry Air Dryer	4.0	hr
Suggested Max Moisture	< 0.020	%
Suggested Shot Size	30 to 70	%
Rear Temperature	428 to 446	°F
Middle Temperature	437 to 455	°F
Front Temperature	446 to 464	°F
Nozzle Temperature	491 to 509	°F
Processing (Melt) Temp	464 to 518	°F
Mold Temperature	140 to 194	°F
Back Pressure	725 to 2180	psi
Vent Depth	9.8E-4 to 3.0E-3	in

Injection Notes

Peripheral Screw Speed: 0.05-0.2 m/s
 Hold Pressure (% of Injection Pressure): 50 - 75%
 Standard Melt Temperature: 260°C

Notes

¹ Typical properties: these are not to be construed as specifications.

² 150x105x3 mm, 80°C MT

