

**Bayblend® FR3050**

 Covestro - Polycarbonates - *Polycarbonate + ABS*
**General Information**
**Product Description**

(PC+ABS)-Blend; flame retardant; high heat resistant injection molding grade; improved chemical resistance and stress cracking behavior compared to KU2-1514; Vicat/B 120 temperature = 136°C; ball indentation temperature  $\geq$  125°C; UL recognition 94 V-1 at 1.0 mm; suitable as supporting material for energized parts

**General**

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Flame Retardant		
Features	• Chemical Resistant • Flame Retardant	• High ESCR (Stress Crack Resist.) • High Heat Resistance	
RoHS Compliance	• RoHS Compliant		
ISO Designation	• PC+ABS-FR(40)		

**Properties <sup>1</sup>**

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.19	g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	18	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage <sup>2</sup>			ISO 2577
Across Flow : 500°F, 0.118 in	0.50 to 0.70	%	
Flow : 500°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)	348000	psi	ISO 527-1/1
Tensile Stress (Yield, 73°F)	9430	psi	ISO 527-2/50
Tensile Stress (Break, 73°F)	8700	psi	ISO 527-2/50
Tensile Strain (Yield, 73°F)	5.0	%	ISO 527-2/50
Tensile Strain (Break, 73°F)	> 50	%	ISO 527-2/50
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength			ISO 180/A
-22°F	7.1	ft·lb/in <sup>2</sup>	
73°F	26	ft·lb/in <sup>2</sup>	
Unnotched Izod Impact Strength (73°F)	No Break		ISO 180
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	259	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	239	°F	ISO 75-2/A
Vicat Softening Temperature			
--	277	°F	ISO 306/B120
--	273	°F	ISO 306/B50
CLTE - Flow (73 to 131°F)	3.8E-5	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	3.8E-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	2.0E-3	
73°F, 1 MHz	8.0E-3	
Comparative Tracking Index (Solution A)	300 V	IEC 60112
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>
Flame Rating		Test Method
0.04 in	V-1	UL 94
0.06 in	V-0	
0.08 in	5VB	
0.12 in	5VA	
<b>Fill Analysis</b>	<b>Nominal Value</b>	<b>Unit</b>
Melt Viscosity <sup>3</sup> (500°F)	480 Pa·s	ISO 11443-A

### Processing Information

Injection	Nominal Value	Unit
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

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

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 150x105x3mm., MT 80°C

<sup>3</sup> 1000s-1

