

**Bayblend® FR3040 R35 RE**

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

containing 35% post-consumer PC recyclate; flame retardant; injection molding grade; for notebooks and thinwall applications

**General**

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Additive	• Flame Retardant
Recycled Content	• Post-Consumer (PCR), 35%
Features	• Flame Retardant
Uses	• Thin-walled Parts
RoHS Compliance	• RoHS Compliant
Processing Method	• Injection Molding
ISO Designation	• PC(REC35)+ABS-FR(40)

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

<b>Physical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Density (73°F)	1.31	g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (240°C/5.0 kg)	18	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow : 0.0787 in	0.50 to 0.70	%	
Flow : 0.0787 in	0.50 to 0.70	%	
<b>Mechanical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Tensile Modulus (73°F)	370000	psi	ISO 527-1/1
Tensile Stress (Yield, 73°F)	9430	psi	ISO 527-2/50
Tensile Stress (Break, 73°F)	7110	psi	ISO 527-2/50
Tensile Strain (Yield, 73°F)	4.2	%	ISO 527-2/50
Tensile Strain (Break, 73°F)	> 50	%	ISO 527-2/50
Flexural Modulus <sup>2</sup> (73°F)	392000	psi	ISO 178
Flexural Stress <sup>2</sup>			ISO 178
3.5% Strain, 73°F	12600	psi	
73°F	14600	psi	
Flexural Strain at Flexural Strength <sup>3</sup> (73°F)	5.0	%	ISO 178
<b>Impact</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Charpy Notched Impact Strength (73°F)	18	ft-lb/in <sup>2</sup>	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	No Break		ISO 179/1eU
Notched Izod Impact Strength (73°F)	17	ft-lb/in <sup>2</sup>	ISO 180/A
Unnotched Izod Impact Strength (73°F)	No Break		ISO 180
<b>Hardness</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Ball Indentation Hardness	19300	psi	ISO 2039-1
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load (66 psi, Unannealed)	205	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	189	°F	ISO 75-2/A
Vicat Softening Temperature			
--	221	°F	ISO 306/B120
--	217	°F	ISO 306/B50
<b>Electrical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Surface Resistivity	1.0E+17	ohms	IEC 60093



Volume Resistivity (73°F)	1.0E+18 ohms·cm	IEC 60093
<b>Flammability</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Flame Rating (0.030 in, BK, WT, BL)	V-0	UL 94
<b>Fill Analysis</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Melt Viscosity (500°F, 1000 sec <sup>-1</sup> )	255 Pa·s	ISO 11443-A

### Processing Information

<b>Injection</b>	<b>Nominal Value Unit</b>
Drying Temperature - Dry Air Dryer	185 °F
Drying Time - Dry Air Dryer	4.0 hr
Suggested Max Moisture	0.020 %
Suggested Shot Size	30 to 70 %
Rear Temperature	455 to 500 °F
Middle Temperature	482 to 554 °F
Front Temperature	482 to 554 °F
Nozzle Temperature	482 to 554 °F
Processing (Melt) Temp	482 to 554 °F
Mold Temperature	158 to 212 °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%

### Notes

- <sup>1</sup> Typical properties: these are not to be construed as specifications.
- <sup>2</sup> 0.079 in/min
- <sup>3</sup> 2.0 mm/min

