

**Bayblend® FR3021 R30**

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

(PC+ABS)-Blend; 15 % mineral filled; with 30 % post consumer recycle; Vicat/B 120 temperature = 98 °C; medium viscosity; medium modulus; low warpage; flame-retardant

**General**

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Filler / Reinforcement	• Mineral, 15% Filler by Weight		
Additive	• Flame Retardant		
Recycled Content	• Post-Consumer (PCR), 30%		
Features	• Flame Retardant	• Low Warpage	• Medium Viscosity
RoHS Compliance	• RoHS Compliant		
ISO Designation	• PC(REC30)+ABS-(TD15)-FR(40)		

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

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.31	g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (240°C/5.0 kg)	12	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow : 500°F, 0.0787 in	0.28	%	
Flow : 500°F, 0.0787 in	0.27	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	682000	psi	ISO 527-1/1
Tensile Stress (Yield, 73°F)	9140	psi	ISO 527-2/50
Tensile Stress (Break, 73°F)	5800	psi	ISO 527-2/50
Tensile Strain (Yield, 73°F)	2.8	%	ISO 527-2/50
Tensile Strain (Break, 73°F)	8.6	%	ISO 527-2/50
Flexural Modulus <sup>2</sup> (73°F)	667000	psi	ISO 178
Flexural Stress <sup>2</sup>			ISO 178
3.5% Strain, 73°F	14600	psi	
73°F	14900	psi	
Flexural Strain at Flexural Strength <sup>3</sup> (73°F)	4.3	%	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	2.4	ft·lb/in <sup>2</sup>	
73°F	2.9	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	40	ft·lb/in <sup>2</sup>	
73°F	50	ft·lb/in <sup>2</sup>	
Notched Izod Impact Strength			ISO 180/A
-22°F	2.4	ft·lb/in <sup>2</sup>	
73°F	2.9	ft·lb/in <sup>2</sup>	
Unnotched Izod Impact Strength			ISO 180
-22°F	32	ft·lb/in <sup>2</sup>	
73°F	37	ft·lb/in <sup>2</sup>	
Multi-Axial Instrumented Impact Energy (73°F)	26.6	ft·lb	ISO 6603-2
Multi-Axial Instrumented Impact Peak Force (73°F)	899	lbf	ISO 6603-2



<b>Hardness</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Ball Indentation Hardness	19400	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)	198	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	187	°F	ISO 75-2/A
Vicat Softening Temperature			
--	208	°F	ISO 306/B120
--	203	°F	ISO 306/B50
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Flame Rating (0.05 in)	V-0		UL 94
<b>Fill Analysis</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Melt Viscosity (500°F)	205	Pa·s	ISO 11443-A

### Processing Information

<b>Injection</b>	<b>Nominal Value</b>	<b>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	428 to 455	°F
Middle Temperature	446 to 473	°F
Front Temperature	464 to 500	°F
Nozzle Temperature	464 to 509	°F
Processing (Melt) Temp	446 to 518	°F
Mold Temperature	140 to 176	°F
Back Pressure	725 to 1450	psi
Vent Depth	7.9E-4 to 1.6E-3	in
<b>Injection Notes</b>		
Peripheral Screw Speed: 0.1-0.3 m/s		
Hold Pressure (% of Injection Pressure): 50 - 75%		
Standard Melt Temperature: 240°C		

### 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

