Bayblend® FR3040 R35

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 [1]

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.31	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (240°C/5.0 kg)	18	cm³/10min	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	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
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 [2] (73°F)	392000	psi	ISO 178
Flexural Stress [2]			ISO 178
3.5% Strain, 73°F	12600	psi	
73°F	14600	psi	
Flexural Strain at Flexural Strength [3] (73°F)	5.0	%	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (73°F)	18	ft·lb/in²	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	No Break		ISO 179/1eU
Notched Izod Impact Strength (73°F)	17	ft·lb/in²	ISO 180/A
Unnotched Izod Impact Strength (73°F)	No Break		ISO 180
Hardness	**Nominal Value**	**Unit**	**Test Method**
Ball Indentation Hardness	19300	psi	ISO 2039-1
Thermal	**Nominal Value**	**Unit**	**Test Method**
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
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+17	ohms	IEC 60093

Volume Resistivity (73°F)	1.0E+18	ohms·cm	IEC 60093

Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.030 in, BK, WT, BL)	V-0		UL 94

Fill Analysis	**Nominal Value**	**Unit**	**Test Method**
Melt Viscosity (500°F, 1000 sec^-1)	255	Pa·s	ISO 11443-A

Processing Information

Injection	**Nominal Value**	**Unit**
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

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

[2] 0.079 in/min

[3] 2.0 mm/min