

## Bayblend® FR3006 HF

Covestro - Polycarbonates - *Polycarbonate + ABS*

### General Information

#### Product Description

(PC+ABS)-Blend; flame retardant; Vicat/B 120 temperature = 108°C; easy flow version of FR3006; increased heat resistance; UL recognition 94 V-1 at 1.5 mm, V-0 at 1.8 mm and 5VB at 1.8 mm

#### General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Flame Retardant		
Features	• Flame Retardant	• Good Flow	• 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)	1.18	g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (240°C/5.0 kg)	36	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage <sup>2</sup>			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)	8700	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)	5.7	ft·lb/in <sup>2</sup>	ISO 180/A
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	214	°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)	4.0E-5	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	4.0E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+16	ohms	IEC 60093
Volume Resistivity (73°F)	1.0E+16	ohms·cm	IEC 60093
Electric Strength (73°F, 0.0394 in)	760	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	7.0E-3		



Comparative Tracking Index (Solution A)	350 V	IEC 60112
<b>Flammability</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Flame Rating		UL 94
0.06 in	V-1	
0.07 in	• V-0	
	• 5VB	
<b>Fill Analysis</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Melt Viscosity <sup>3</sup> (500°F)	125 Pa·s	ISO 11443-A

### Processing Information

<b>Injection</b>	<b>Nominal Value Unit</b>
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

<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

