

Bayblend® FR3040 W RE

Covestro - Polycarbonates - *Polycarbonate + ABS*

General Information

Product Description

PC+ABS-FR(40)-Blend; flame retardant; for notebooks and thinwall applications

Partially bio-circular grade / Attributed via mass balance (according to ISCC PLUS Standard).

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Additive	• Flame Retardant		
Features	• Flame Retardant		
Uses	• Thin-walled Parts		
Agency Ratings	• ISCC PLUS		
RoHS Compliance	• RoHS Compliant		
ISO Designation	• PC-I FR(40)		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.19	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (240°C/5.0 kg)	23	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow : 176°F, 0.0787 in	0.52	%	
Flow : 176°F, 0.0787 in	0.52	%	
Water Absorption (Saturation, 73°F)	0.14	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	384000	psi	ISO 527-1/1
Tensile Stress (Yield, 73°F)	8700	psi	ISO 527-2/50
Tensile Stress (Break, 73°F)	8270	psi	ISO 527-2/50
Tensile Strain (Yield, 73°F)	4.0	%	ISO 527-2/50
Tensile Strain (Break, 73°F)	110	%	ISO 527-2/50
Flexural Modulus ² (73°F)	387000	psi	ISO 178
Flexural Stress ²			ISO 178
3.5% Strain, 73°F	12000	psi	
73°F	13600	psi	
Flexural Strain at Flexural Strength ³ (73°F)	5.5	%	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	4.3	ft·lb/in ²	
73°F	24	ft·lb/in ²	
Charpy Unnotched Impact Strength (73°F)	No Break		ISO 179/1eU
Notched Izod Impact Strength			ISO 180/A
-22°F	5.7	ft·lb/in ²	
32°F	32	ft·lb/in ²	
73°F	• •	23 34	ft·lb/in ²
Multi-Axial Instrumented Impact Energy (73°F)	36.1	ft·lb	ISO 6603-2
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness	18300	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			
--	217	°F	ISO 306/B120
--	214	°F	ISO 306/B50
CLTE - Flow (73 to 131°F)	3.2E-5	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	3.1E-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
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.030 in, BK	V-0		
0.031 in	V-0		
0.06 in	5VB		
Glow Wire Flammability Index (0.04 in)	1760	°F	IEC 60695-2-12
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (500°F, 1000 sec ⁻¹)	250	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	464 to 500	°F
Middle Temperature	482 to 518	°F
Front Temperature	500 to 536	°F
Nozzle Temperature	500 to 536	°F
Processing (Melt) Temp	482 to 536	°F
Mold Temperature	140 to 176	°F
Back Pressure	725 to 1450	psi
Vent Depth	7.9E-4 to 1.6E-3	in
Injection Notes		
Peripheral Screw Speed: 0.1-0.3 m/s		
Hold Pressure (% of Injection Pressure): 50 - 75%		
Standard Melt Temperature: 260°C		

Notes

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

² 0.079 in/min

³ 2.0 mm/min

