

Bayblend® FR3025 R35

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

(PC+ABS)-Blend; flame retardant; mineral filled ; containing 35% post-consumer PC recyclate; Vicat/B 120 temperature = 102°C; UL recognition 94 V-0 at 1.2 mm; low warpage; improved stiffness and surface quality; for notebooks and thinwall applications

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Mineral
Additive	• Flame Retardant
Recycled Content	• Post-Consumer (PCR), 35%
Features	• Flame Retardant • Low Warpage
Uses	• Thin-walled Parts
ISO Designation	• PC+ABS-TD25(FR40)

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.40	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	27	cm ³ /10min	ISO 1133
Molding Shrinkage ²			ISO 294-4
Across Flow : 0.0787 in	0.30	%	
Flow : 0.0787 in	0.30	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	899000	psi	ISO 527-1/1
Tensile Stress (Yield, 73°F)	8560	psi	ISO 527-2/50
Tensile Stress (Break, 73°F)	7540	psi	ISO 527-2/50
Tensile Strain (Yield, 73°F)	2.7	%	ISO 527-2/50
Tensile Strain (Break, 73°F)	5.4	%	ISO 527-2/50
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	1.9	ft·lb/in ²	
73°F	2.9	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	21	ft·lb/in ²	
73°F	24	ft·lb/in ²	
Notched Izod Impact Strength			ISO 180/A
-22°F	2.4	ft·lb/in ²	
73°F	2.9	ft·lb/in ²	
Unnotched Izod Impact Strength			ISO 180
-22°F	14	ft·lb/in ²	
73°F	19	ft·lb/in ²	
Multi-Axial Instrumented Impact Energy			ISO 6603-2
-22°F	1.84	ft·lb	
73°F	9.59	ft·lb	
Multi-Axial Instrumented Impact Peak Force			ISO 6603-2
-22°F	247	lbf	
73°F	585	lbf	

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)	194 °F	ISO 75-2/A
Vicat Softening Temperature		
--	216 °F	ISO 306/B120
--	212 °F	ISO 306/B50
Flammability	Nominal Value Unit	Test Method
Flame Rating (0.05 in)	V-0	UL 94
Fill Analysis	Nominal Value Unit	Test Method
Melt Viscosity ³ (500°F)	227 Pa·s	ISO 11443-A

Processing Information

Injection	Nominal Value Unit
Drying Temperature - Dry Air Dryer	185 °F
Drying Time - Dry Air Dryer	2.0 to 4.0 hr
Suggested Max Moisture	< 0.025 %
Suggested Shot Size	30 to 70 %
Rear Temperature	464 to 500 °F
Middle Temperature	482 to 536 °F
Front Temperature	518 to 572 °F
Nozzle Temperature	518 to 572 °F
Processing (Melt) Temp	518 to 572 °F
Mold Temperature	149 to 212 °F
Back Pressure	725 to 1450 psi
Vent Depth	7.9E-4 to 1.6E-3 in

Injection Notes

Hold Pressure (% of Injection Pressure): 50-75%

Standard Melt Temperature: 290°C

Peripheral Screw Speed: 0.1-0.3 m/s

Notes

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

² 60x60x2mm

³ 1000s-1

