

Bayblend® FR3025

Polycarbonate + ABS

Covestro - Polycarbonates

PROSPECTOR®

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Technical Data

Product Description

(PC+ABS)-Blend; flame retardant; mineral filled ; 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 • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Mineral		
Additive	• Flame Retardant		
Features	• Flame Retardant	• Low Warpage	
Uses	• Thin-walled Parts		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density (73°F (23°C))	1.40 g/cm ³	1.40 g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	1.65 in ³ /10min	27.0 cm ³ /10min	ISO 1133
Molding Shrinkage ²			ISO 294-4
Across Flow : 0.0787 in (2.00 mm)	0.30 %	0.30 %	
Flow : 0.0787 in (2.00 mm)	0.20 %	0.20 %	
Water Absorption			ISO 62
Saturation, 73°F (23°C)	0.50 %	0.50 %	
Equilibrium, 73°F (23°C), 50% RH	0.20 %	0.20 %	

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus (73°F (23°C))	914000 psi	6300 MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield, 73°F (23°C)	8560 psi	59.0 MPa	
Break, 73°F (23°C)	7540 psi	52.0 MPa	
Tensile Strain			ISO 527-2/50
Yield, 73°F (23°C)	2.8 %	2.8 %	
Break, 73°F (23°C)	5.8 %	5.8 %	

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	1.9 ft·lb/in ²	4.0 kJ/m ²	
73°F (23°C)	2.9 ft·lb/in ²	6.0 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	21 ft·lb/in ²	45 kJ/m ²	
73°F (23°C)	24 ft·lb/in ²	50 kJ/m ²	
Notched Izod Impact Strength			ISO 180/A
-22°F (-30°C)	2.4 ft·lb/in ²	5.0 kJ/m ²	
73°F (23°C)	2.9 ft·lb/in ²	6.0 kJ/m ²	
Unnotched Izod Impact Strength			ISO 180
-22°F (-30°C)	14 ft·lb/in ²	30 kJ/m ²	
73°F (23°C)	19 ft·lb/in ²	40 kJ/m ²	
Multi-Axial Instrumented Impact Energy			ISO 6603-2
-22°F (-30°C)	1.48 ft·lb	2.00 J	
73°F (23°C)	9.59 ft·lb	13.0 J	
Multi-Axial Instrumented Impact Peak Force			ISO 6603-2
-22°F (-30°C)	247 lbf	1100 N	
73°F (23°C)	585 lbf	2600 N	



Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	205 °F	96.0 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	194 °F	90.0 °C	ISO 75-2/A
Vicat Softening Temperature			
--	212 °F	100 °C	ISO 306/B50
--	216 °F	102 °C	ISO 306/B120
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.030 in (0.75 mm)	V-1	V-1	
0.05 in (1.2 mm)	V-0	V-0	
Fill Analysis	Nominal Value (English)	Nominal Value (SI)	Test Method
Melt Viscosity ³ (500°F (260°C))	230 Pa·s	230 Pa·s	ISO 11443-A
Additional Information	Nominal Value (English)	Nominal Value (SI)	
ISO Shortname	PC+ABS-TD25(FR40)	PC+ABS-TD25(FR40)	
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature - Dry Air Dryer	185 °F	85 °C	
Drying Time - Dry Air Dryer	2.0 to 4.0 hr	2.0 to 4.0 hr	
Suggested Max Moisture	0.020 %	0.020 %	
Suggested Shot Size	30 to 70 %	30 to 70 %	
Rear Temperature	464 to 500 °F	240 to 260 °C	
Middle Temperature	482 to 536 °F	250 to 280 °C	
Front Temperature	518 to 572 °F	270 to 300 °C	
Nozzle Temperature	518 to 572 °F	270 to 300 °C	
Processing (Melt) Temp	518 to 572 °F	270 to 300 °C	
Mold Temperature	149 to 212 °F	65 to 100 °C	
Back Pressure	725 to 1450 psi	5.00 to 10.0 MPa	
Vent Depth	7.9E-4 to 1.6E-3 in	0.020 to 0.040 mm	

Injection Notes

Standard Melt Temperature: 290°C
 Hold Pressure (% of Injection Pressure): 50-75%
 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



Where to Buy

Supplier

Covestro - Polycarbonates

Leverkusen, Germany
Telephone: +49-214-6009-2000
Web: <http://www.plastics.covestro.com/>

Distributor

ALBIS Plastic

ALBIS Plastic is a global distribution and compounding company. Contact ALBIS Plastic for availability of individual products per country.

Telephone: +49-40-78105-0

Web: <http://www.albis.com/>

Availability: Algeria, Austria, Belgium, China, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hong Kong, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Morocco, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Spain, Sweden, Switzerland, Tunisia, Turkey, United Kingdom

Amco Polymers

Telephone: 800-262-6685

Web: <http://www.amcopolymers.com/>

Availability: North America

M. Holland Company

Telephone: 855-497-1403

Web: <http://www.mholland.com/>

Availability: Mexico, United States

PolyOne Distribution

PolyOne Distribution is a global distribution company. Contact PolyOne Distribution for availability of individual products by country.

Telephone: 800-894-4266

Web: <http://polyonedistribution.com/>

Availability: Global

Reseller

A Reseller is not a distributor authorized by the Supplier.

Shanghai Jingyang New Material Technology Co., Ltd

Telephone: +86-021-80394788; Mr. Zhou: +86-15821998203

Web: <http://www.basfppsu.com/>

Availability: Asia Pacific, China