

# Bayblend® FR3010 HF

Polycarbonate + ABS

Covestro - Polycarbonates

# PROSPECTOR®

www.ulprospector.com

## Technical Data

### Product Description

(PC+ABS)-Blend; flame retardant; easy flowing; Vicat/B 120 temperature = 108°C; UL recognition 94 V-0 at 1.5 mm; glow wire temperature (GWFI): 960°C at 2.0 mm; optimized processability; good light stability

### General

Material Status	• Commercial: Active
Literature <sup>1</sup>	• <a href="#">Technical Datasheet (English)</a>
UL Yellow Card <sup>2</sup>	• <a href="#">E41613-232955</a>
Search for UL Yellow Card	• <a href="#">Covestro - Polycarbonates</a> • <a href="#">Bayblend®</a>
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Additive	• Flame Retardant
Features	• Flame Retardant • Good Flow • Good Processability • Light Stabilized
RoHS Compliance	• RoHS Compliant
ISO Shortname	• PC+ABS-FR(40)

Physical	Nominal Value Unit	Test Method
Density (23°C)	1.18 g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (240°C/5.0 kg)	25 cm <sup>3</sup> /10min	ISO 1133
Spiral Flow <sup>4</sup>	40.0 cm	Internal Method
Molding Shrinkage <sup>5</sup>		ISO 2577
Across Flow : 240°C, 3.00 mm	0.50 to 0.70 %	
Flow : 240°C, 3.00 mm	0.50 to 0.70 %	
Water Absorption		ISO 62
Saturation, 23°C	0.50 %	
Equilibrium, 23°C, 50% RH	0.20 %	
Mechanical	Nominal Value Unit	Test Method
Tensile Modulus (23°C)	2600 MPa	ISO 527-1/1
Tensile Stress		ISO 527-2/50
Yield, 23°C	60.0 MPa	
Break, 23°C	50.0 MPa	
Tensile Strain		ISO 527-2/50
Yield, 23°C	4.0 %	
Break, 23°C	> 50 %	
Impact	Nominal Value Unit	Test Method
Notched Izod Impact Strength		ISO 180/A
-30°C	10 kJ/m <sup>2</sup>	
23°C	35 kJ/m <sup>2</sup>	
Unnotched Izod Impact Strength (23°C)	No Break	ISO 180
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		
0.45 MPa, Unannealed	100 °C	ISO 75-2/B
1.8 MPa, Unannealed	90.0 °C	ISO 75-2/A
Vicat Softening Temperature		
--	108 °C	ISO 306/B120
--	106 °C	ISO 306/B50
CLTE		ISO 11359-2
Flow : 23 to 55°C	7.6E-5 cm/cm/°C	
Transverse : 23 to 55°C	8.0E-5 cm/cm/°C	



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Electrical	Nominal Value Unit	Test Method
Surface Resistivity	1.0E+16 ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+16 ohms·cm	IEC 60093
Electric Strength (23°C, 1.00 mm)	35 kV/mm	IEC 60243-1
Relative Permittivity		IEC 60250
23°C, 100 Hz	3.20	
23°C, 1 MHz	3.10	
Dissipation Factor		IEC 60250
23°C, 100 Hz	4.0E-3	
23°C, 1 MHz	7.0E-3	
Comparative Tracking Index (Solution A)	350 V	IEC 60112

Flammability	Nominal Value Unit	Test Method
Flame Rating		UL 94
1.5 mm	V-0	
2.2 mm	5VB	
3.0 mm	5VA	

Injection	Nominal Value Unit
Drying Temperature - Dry Air Dryer	80 °C
Drying Time - Dry Air Dryer	4.0 hr
Suggested Max Moisture	< 0.020 %
Suggested Shot Size	30 to 70 %
Rear Temperature	220 to 230 °C
Middle Temperature	225 to 235 °C
Front Temperature	230 to 240 °C
Nozzle Temperature	255 to 265 °C
Processing (Melt) Temp	240 to 270 °C
Mold Temperature	60 to 90 °C
Back Pressure	5.00 to 15.0 MPa
Vent Depth	0.025 to 0.075 mm

### Injection Notes

Peripheral Screw Speed: 0.05 - 0.2 m/s  
Standard Melt Temperature: 260°C  
Hold Pressure (% of Injection Pressure): 50 - 75%

### Notes

- <sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.
- <sup>2</sup> A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.
- <sup>3</sup> Typical properties: these are not to be construed as specifications.
- <sup>4</sup> Mold Temperature: 80°C, Melt Temperature: 260°C, 2.00 mm
- <sup>5</sup> 150x105x3mm., MT 80°C



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### Where to Buy

#### Supplier

##### Covestro - Polycarbonates

Leverkusen, 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, Bulgaria, 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

##### Formerra (Formerly Avient Distribution)

*Formerra is a next generation distributor of performance material solutions for the world's leading brand owners and manufacturers. Bringing you commercial and technical expertise, industry know-how, and access to more than 5,000 materials from 40+ premium suppliers faster and easier than ever before.*

Telephone: 1.888.502.0951 (USA); +86-21-60284936 (China)

Web: <https://www.formerra.com>

Availability: Global

##### M. Holland Company

Telephone: 855-497-1403

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

Availability: Mexico, United States

