

Technical Data Sheet



Polyman E-14961B GF32 Black

Polycarbonate
LyondellBasell Industries
Engineering Plastics

Product Description

32% Glass Fiber Reinforced Polycarbonate

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber, 32% Filler by Weight
Processing Method	• Extrusion • Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.43	1.43 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
300°C/1.2 kg	5.4 g/10 min	5.4 g/10 min	
300°C/3.8 kg	27 g/10 min	27 g/10 min	
300°C/5.0 kg	30 g/10 min	30 g/10 min	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus ¹			ASTM D638
73°F (23°C), 0.122 in (3.11 mm), Injection Molded	63900 psi	440 MPa	
Tensile Strength ¹			ASTM D638
Break, 73°F (23°C), 0.122 in (3.11 mm), Injection Molded	17000 psi	117 MPa	
Tensile Elongation ¹			ASTM D638
Break, 73°F (23°C), 0.122 in (3.11 mm), Injection Molded	2.7 %	2.7 %	
Flexural Modulus - 1% Secant ²	1.13E+6 psi	7790 MPa	ASTM D790
Flexural Strength ² (Yield)	17200 psi	118 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
73°F (23°C), 0.121 in (3.07 mm)	3.4 ft·lb/in	180 J/m	
Unnotched Izod Impact			ASTM D4812
73°F (23°C), 0.121 in (3.08 mm)	17 ft·lb/in	930 J/m	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.496 in (12.6 mm)	294 °F	146 °C	
264 psi (1.8 MPa), Unannealed, 0.496 in (12.6 mm)	287 °F	142 °C	
Vicat Softening Temperature			
--	302 °F	150 °C	ASTM D1525 ³
--	305 °F	152 °C	ASTM D1525 ⁴
CLTE			ASTM D696
Flow : -4 to 266°F (-20 to 130°C)	9.9E-6 in/in/°F	1.8E-5 cm/cm/°C	
Transverse : -4 to 266°F (-20 to 130°C)	3.6E-5 in/in/°F	6.5E-5 cm/cm/°C	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			
0.0787 in (2.00 mm)	< 3.9 in/min	< 100 mm/min	ISO 3795
0.0787 in (2.00 mm)	< 3.9 in/min	< 100 mm/min	FMVSS 302

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Additional Information

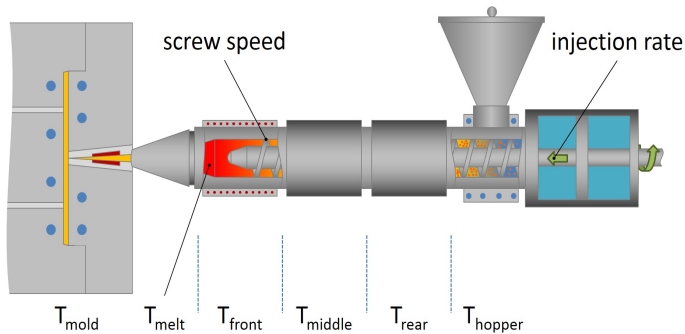
- 1.) Not for use in food contact applications
- 2.) Not for use in medical or pharmaceutical applications

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	250 °F	121 °C
Drying Time	3.0 to 6.0 hr	3.0 to 6.0 hr
Drying Time, Maximum	6.0 hr	6.0 hr
Rear Temperature	540 to 580 °F	282 to 304 °C
Middle Temperature	560 to 600 °F	293 to 316 °C
Front Temperature	580 to 640 °F	304 to 338 °C
Nozzle Temperature	580 to 640 °F	304 to 338 °C
Processing (Melt) Temp	600 to 650 °F	316 to 343 °C
Mold Temperature	180 to 240 °F	82 to 116 °C

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Notes

¹ 0.20 in/min (5.0 mm/min)

² 0.051 in/min (1.3 mm/min)

³ Rate A (50°C/h), Loading 2 (50 N)

⁴ Rate B (120°C/h), Loading 2 (50 N)

Notes

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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