Technical Data Sheet

Polyman E-14961B GF32 Black

Polycarbonate
LyondellBasell Industries
Engineering Plastics

Product Description
32% Glass Fiber Reinforced Polycarbonate

General		
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/cm³	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

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

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.