

Technical Data Sheet

Diamond Abs 3501 GF-20

Acrylonitrile Butadiene Styrene

LyondellBasell Industries

Engineering Plastics

General	
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight
Features	• Good Impact Resistance
Agency Ratings	• EC 1907/2006 (REACH) • EU 2002/96/EC (WEEE)
RoHS Compliance	• RoHS Compliant
Forms	• Pellets

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.17	1.17 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) ¹			ASTM D1238
200°c/5.0 Kg	0.80 g/10 min	0.80 g/10 min	
230°c/3.8 Kg	2.5 to 3.0 g/10 min	2.5 to 3.0 g/10 min	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ² (Yield)	9800 psi	67.6 MPa	ASTM D638
Flexural Modulus ³	642000 psi	4430 MPa	ASTM D790B
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
73°f (23°c), 0.125 In (3.18 Mm)	1.2 ft·lb/in	64 J/m	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 Psi (1.8 Mpa), Annealed, 0.125 In (3.18 Mm)	215 °F	102 °C	
Vicat Softening Temperature	236 °F	113 °C	ASTM D1525 ⁴

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 to 185 °F	80 to 85 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	0.10 %	0.10 %
Rear Temperature	374 to 482 °F	190 to 250 °C
Middle Temperature	374 to 482 °F	190 to 250 °C
Front Temperature	374 to 482 °F	190 to 250 °C
Mold Temperature	104 to 176 °F	40 to 80 °C
Injection Rate	Moderate-Fast	Moderate-Fast

Notes

- ¹ Procedure A
- ² 2.0 in/min (51 mm/min)
- ³ 0.050 in/min (1.3 mm/min)
- ⁴ Loading 1 (10 N)

Notes

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