

Technical Data Sheet

**Qr Resin QR-1000-GFR20**

Polycarbonate
LyondellBasell Industries
Engineering Plastics

Product Description

Available with UV (V) or Release (R).
Flame Packages Available (0.125 in min. thickness): 94V-2, 94V-0, 94-5VA

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight
Features	• Good Toughness
Appearance	• Colors Available • Natural Color
Forms	• Pellets
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.35	1.35 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	10 to 20 g/10 min	10 to 20 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield)	16000 psi	110 MPa	ASTM D638
Flexural Modulus	780000 psi	5380 MPa	ASTM D790
Flexural Strength (Yield)	18800 psi	130 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	1.5 ft·lb/in	80 J/m	ASTM D256
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	300 °F	149 °C	
264 psi (1.8 MPa), Unannealed	295 °F	146 °C	

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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 590 °F	282 to 310 °C
Middle Temperature	560 to 600 °F	293 to 316 °C
Front Temperature	580 to 620 °F	304 to 327 °C
Nozzle Temperature	580 to 610 °F	304 to 321 °C
Processing (Melt) Temp	580 to 620 °F	304 to 327 °C
Mold Temperature	180 to 240 °F	82 to 116 °C

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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