

Technical Data Sheet



Qr Resin QR-1310-GF10

Polycarbonate + Polyester
LyondellBasell Industries
Engineering Plastics

Product Description

QR-1310-GF10 is a 10% glass fiber filled PC/Polyester injection molding grade that is UV stabilized and contains a release agent. It has improved chemical resistance and good stiffness.

General

Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber, 10% Filler by Weight		
Features	• Chemical Resistant	• Good Stiffness	
	• Good Mold Release	• UV Stabilized	
Appearance	• Black	• Colors Available	• Natural Color
Forms	• Pellets		
Processing Method	• Injection Molding		

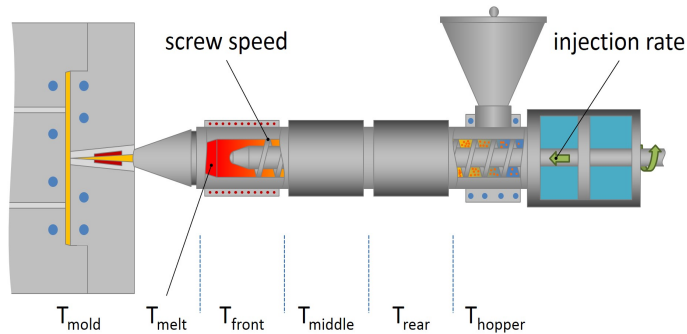
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.28	1.27 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (260°C/5.0 kg)	11 g/10 min	11 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ¹ (Yield)	9600 psi	66.2 MPa	ASTM D638
Flexural Modulus - 1% Secant ²	526000 psi	3620 MPa	ASTM D790
Flexural Strength ² (Yield)	16200 psi	112 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
-4°F (-20°C)	2.1 ft·lb/in	110 J/m	
73°F (23°C)	3.1 ft·lb/in	170 J/m	
Unnotched Izod Impact (73°F (23°C))	18 ft·lb/in	950 J/m	ASTM D4812
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.126 in (3.20 mm)	261 °F	127 °C	
66 psi (0.45 MPa), Unannealed, 0.252 in (6.40 mm)	267 °F	131 °C	
264 psi (1.8 MPa), Unannealed, 0.126 in (3.20 mm)	227 °F	108 °C	
264 psi (1.8 MPa), Unannealed, 0.252 in (6.40 mm)	247 °F	119 °C	
Vicat Softening Temperature			
--	298 °F	148 °C	ASTM D1525 ³
--	254 °F	123 °C	ASTM D1525 ⁴

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	200 °F	93 °C
Drying Time	4.0 to 8.0 hr	4.0 to 8.0 hr
Drying Time, Maximum	8.0 hr	8.0 hr
Suggested Max Moisture	0.02 %	0.02 %
Rear Temperature	485 to 510 °F	252 to 266 °C
Middle Temperature	485 to 530 °F	252 to 277 °C
Front Temperature	490 to 540 °F	254 to 282 °C
Nozzle Temperature	475 to 530 °F	246 to 277 °C
Processing (Melt) Temp	510 to 530 °F	266 to 277 °C
Mold Temperature	160 to 200 °F	71 to 93 °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 1 (10 N)
- ⁴ Rate A (50°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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