Technical Data Sheet

LyondellBasell

Qr Resin QR-1220IM

Polycarbonate + ABS
LyondellBasell Industries
Engineering Plastics

General			
Material Status	• Commercial: Active		
Availability	• North America		
Additive	• Impact Modifier		
Features	• High Heat Resistance • High Impact Resistance	• Impact Modified • Low Temperature Impact Resistance	
Appearance	• Black	• Colors Available	• Natural Color
Forms	• Pellets		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.14	1.14 g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (260°C/5.0 kg)	20 g/10 min	20 g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	22 cm³/10min	22 cm³/10min	ASTM D1238
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus (73°F (23°C))	339000 psi	2340 MPa	ISO 527-1/1
Tensile Strength			
Yield, 73°F (23°C)	7540 psi	52.0 MPa	ASTM D638
Yield, 73°F (23°C)	7910 psi	54.5 MPa	ISO 527-2/5
Break, 73°F (23°C)	7540 psi	52.0 MPa	ISO 527-2/5
Tensile Elongation			
Yield, 73°F (23°C)	150 %	150 %	ASTM D638
Yield, 73°F (23°C)	3.4 %	3.4 %	ISO 527-2
Break, 73°F (23°C)	100 %	100 %	ISO 527-2/5
Flexural Modulus			
73°F (23°C)	327000 psi	2250 MPa	ASTM D790
Chord : 73°F (23°C), 2.52 in (64.0 mm) Span [1]	371000 psi	2560 MPa	ISO 178
Flexural Stress			
73°F (23°C) [1]	13100 psi	90.0 MPa	ISO 178
Yield, 73°F (23°C)	12300 psi	84.8 MPa	ASTM D790
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Charpy Notched Impact Strength			ISO 179
-22°F (-30°C)	16 ft·lb/in²	33 kJ/m²	
73°F (23°C)	22 ft·lb/in²	46 kJ/m²	
Notched Izod Impact			
-22°F (-30°C)	8.0 ft·lb/in	430 J/m	ASTM D256
73°F (23°C)	10 ft·lb/in	530 J/m	ASTM D256
-22°F (-30°C)	18 ft·lb/in²	37 kJ/m²	ISO 180
73°F (23°C)	22 ft·lb/in²	47 kJ/m²	ISO 180
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	252 °F	122 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	220 °F	104 °C	ASTM D648
264 psi (1.8 MPa), Unannealed	219 °F	104 °C	ISO 75-2/A
Vicat Softening Temperature	252 °F	122 °C	ISO 306/B50
CLTE			ASTM E228
Flow : -22 to 176°F (-30 to 80°C)	4.2E-5 in/in/°F	7.5E-5 cm/cm/°C	
Transverse : -22 to 176°F (-30 to 80°C)	4.2E-5 in/in/°F	7.6E-5 cm/cm/°C	

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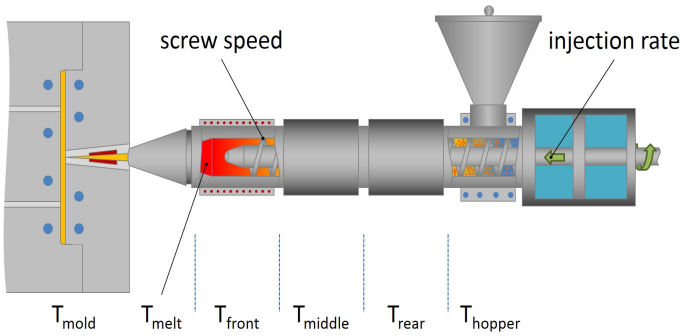

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	165 °F	74 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Drying Time, Maximum	4.0 hr	4.0 hr
Rear Temperature	440 to 490 °F	227 to 254 °C
Middle Temperature	470 to 520 °F	243 to 271 °C
Front Temperature	470 to 520 °F	243 to 271 °C
Nozzle Temperature	470 to 520 °F	243 to 271 °C
Processing (Melt) Temp	480 to 500 °F	249 to 260 °C
Mold Temperature	100 to 160 °F	38 to 71 °C

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Notes

[1] 0.079 in/min (2.0 mm/min)

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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