Technical Data Sheet

Diamaloy QR-1221 IM-NAT

Polycarbonate + ABS

Product Description

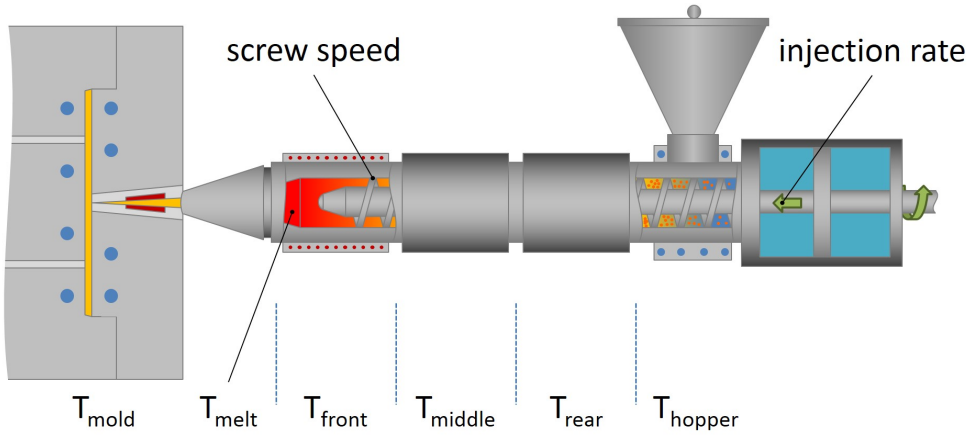
QR-1221-IM is an injection molding grade of PC/ABS that has high gloss and can be colored. Common applications include interior automotive, lawn & garden, and agricultural parts.

Regulatory Status

For regulatory compliance information, see QR-1221 IM-NAT Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

Status	Commercial: Active
Availability	North America
Processing Method	Injection Molding
Attribute	Good Flow; High Gloss
Forms	Pellets
Appearance	Colors Available; Natural Color

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (260 °C/5.0 kg)	16	g/10 min	ISO 1133
Density, (23 °C, Method A)	1.14	g/cm³	ISO 1183
Mechanical			
Tensile Stress at Yield			
(50 mm/min)	63.8	MPa	ISO 527
(1 mm/min)	23.3	MPa	ISO 527
Tensile Strain at Break	140	%	ISO 527-2
Tensile Modulus, (1 mm/min)	2360	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(-30 °C, Type 1)	44	kJ/m²	ISO 179
(23 °C, Type 1)	140	kJ/m²	ISO 179
Multi-axial Impact Strength			
(-30 °C, 6.6 m/sec, Total Penetration Energy, Brittle Failure)	66.9	J	ASTM D3763
(23 °C, 6.6 m/sec, Total Penetration Energy, Ductile Failure)	62.6	J	ASTM D3763
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	119	°C	ISO 306
(B (50N), 120 °C/h)	123	°C	ISO 306
Deflection Temperature Under Load Unannealed (1.80 MPa)	105	°C	ISO 75-2/A
Coefficent of Linear Thermal Expansion (CLTE), Flow	6.7E-05	cm/cm/°C	ISO 11359-2
Coefficent of Linear Thermal Expansion (CLTE), Perpendicular	8E-05	cm/cm/°C	ISO 11359-2



Injection Parameters	Nominal Value	Units
Drying Time	4.0 to 8.0	hr
Drying Temperature	107	°C
Nozzle Temperature	260 to 288	°C
Processing (Melt) Temp	260 to 288	°C
Front Temperature	260 to 288	°C
Middle Temperature	249 to 288	°C
Rear Temperature	246 to 282	°C
Mold Temperature	60 to 93	°C
Drying Time, Maximum	8	hr

Notes

These are typical property values not to be construed as specification limits. The typical values for this product may have been tested on a natural grade.

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.

Company Information

For further information regarding the LyondellBasell company, please visit http://www.lyb.com/.

Disclaimer

Information in this document is accurate to the best of our knowledge at the date of publication. The document is designed to provide users general information for safe handling, use, processing, storage, transportation, disposal and release and does not constitute any warranty or quality specification, either express or implied, including any warranty of merchantability or fitness for any particular purpose. Users shall determine whether the product is suitable for their use and can be used safely and legally.

In addition to any prohibitions of use specifically noted in this document, LyondellBasell may further prohibit or restrict the sale of its products into certain applications. For further information, please contact a LyondellBasell representative.

Trademarks

The Trademark referenced within the product name is owned or used by the LyondellBasell family of companies.