Technical Data Sheet

LyondellBasell

Diamond Abs TR-5000

Acrylonitrile Butadiene Styrene
LyondellBasell Industries
Engineering Plastics

General	
Material Status	• Commercial: Active
Availability	• North America
UL File NumberUSA	• E150937
Appearance	• Clear/Transparent
Forms	• Pellets
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.10	1.10 g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) [1] (200°C/5.0 kg)	2.1 g/10 min	2.1 g/10 min	ASTM D1238
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Strength [2] (Yield)	7090 psi	48.8 MPa	ASTM D638
Flexural Modulus [3]	334000 psi	2300 MPa	ASTM D790B
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Notched Izod Impact (0.125 in (3.18 mm))	2.0 ft·lb/in	110 J/m	ASTM D256A
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Rockwell Hardness (R-Scale)	112	112	ASTM D785
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm)	163 °F	72.8 °C	
Flammability	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Flame Rating	HB	HB	UL 94
Optical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Light Transmittance (118.1 mil (3000 µm))	90.0 %	90.0 %	ASTM D1003
Haze (118.1 mil (3000 µm))	3.50 %	3.50 %	ASTM D1003

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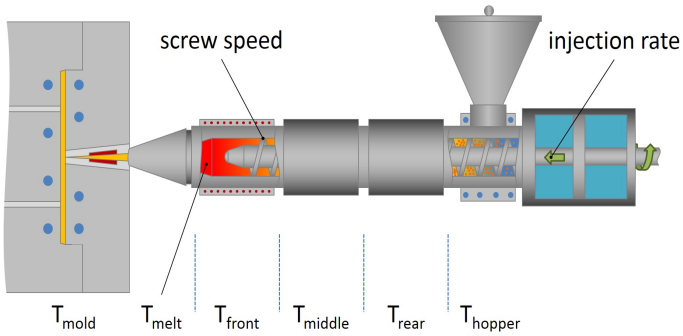

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 to 185 °F	80 to 85 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	0.10 %	0.10 %
Rear Temperature	374 to 482 °F	190 to 250 °C
Middle Temperature	374 to 482 °F	190 to 250 °C
Front Temperature	374 to 482 °F	190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

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Notes

[1] Procedure A

[2] 2.0 in/min (51 mm/min)

[3] Method I (3 point load), 0.050 in/min (1.3 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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