

Technical Data Sheet



Diamond Abs TR-7

Acrylonitrile Butadiene Styrene
LyondellBasell Industries
Engineering Plastics

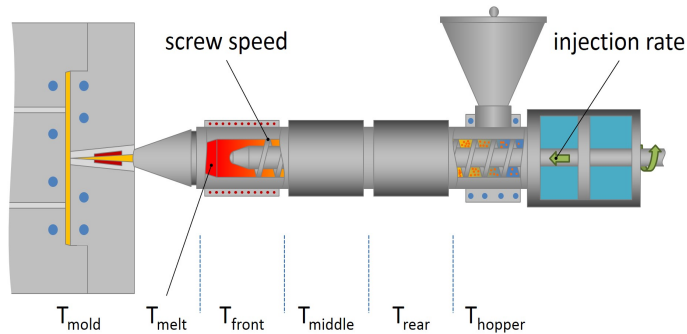
General			
Material Status	• Commercial: Active		
Availability	• North America		
Features	• Good Dimensional Stability • Good Flow	• High Heat Resistance • High Stiffness	• Paintable • Platable
Uses	• Appliances	• Automotive Exterior Parts	• Automotive Interior Trim
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.08	1.08 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
220°C/10.0 kg	4.9 g/10 min	4.9 g/10 min	
230°C/3.8 kg ¹	1.6 g/10 min	1.6 g/10 min	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			
Yield ²	6240 psi	43.0 MPa	ASTM D638
Yield	5950 psi	41.0 MPa	ISO 527-2
Flexural Modulus			
Chord : Injection Molded	339000 psi	2340 MPa	ISO 178
1% Secant ³	309000 psi	2130 MPa	ASTM D790B
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F (-30°C)	4.5 ft·lb/in ²	9.5 kJ/m ²	
73°F (23°C)	7.9 ft·lb/in ²	17 kJ/m ²	
Notched Izod Impact			
-22°F (-30°C)	2.0 ft·lb/in	110 J/m	ASTM D256
73°F (23°C) ⁴	3.7 ft·lb/in	200 J/m	ASTM D256
-22°F (-30°C)	4.5 ft·lb/in ²	9.5 kJ/m ²	ISO 180
73°F (23°C)	9.0 ft·lb/in ²	19 kJ/m ²	ISO 180
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-Scale)	111	111	ASTM D785 ISO 2039-2
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	229 °F	110 °C	ASTM D648
66 psi (0.45 MPa), Unannealed	232 °F	111 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	202 °F	94.3 °C	ASTM D648 ISO 75-2/A
Vicat Softening Temperature			
--	257 °F	125 °C	ASTM D1525 ⁵
--	252 °F	122 °C	ISO 306
CLTE			ASTM E831
Flow	4.3E-5 in/in/°F	7.8E-5 cm/cm/°C	
Transverse	5.1E-5 in/in/°F	9.1E-5 cm/cm/°C	

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	180 to 194 °F	82 to 90 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	0.10 %	0.10 %
Rear Temperature	392 to 482 °F	200 to 250 °C
Middle Temperature	392 to 482 °F	200 to 250 °C
Front Temperature	392 to 482 °F	200 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 (50 mm/min)

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

⁴ Method A

⁵ Loading 1 (10 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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