

Technical Data Sheet

**Diamond Asa 2020 LG50**

Acrylonitrile Styrene Acrylate
LyondellBasell Industries
Engineering Plastics

General

Material Status	• Commercial: Active
Availability	• North America
Features	• Good Weather Resistance • Medium Impact Resistance
Forms	• Pellets
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.06	1.06 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) ¹ (220°C/10.0 kg)	20 g/10 min	20 g/10 min	ASTM D1238

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ² (Yield)	6500 psi	44.8 MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield	2.8 %	2.8 %	
Break	23 %	23 %	
Flexural Modulus - Tangent ³	311000 psi	2140 MPa	ASTM D790
Flexural Strength	9400 psi	64.8 MPa	ASTM D790

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
73°F (23°C), 0.125 in (3.18 mm)	2.0 ft·lb/in	110 J/m	

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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 %
Suggested Shot Size	40 to 70 %	40 to 70 %
Rear Temperature	446 to 500 °F	230 to 260 °C
Middle Temperature	450 to 509 °F	232 to 265 °C
Front Temperature	455 to 522 °F	235 to 272 °C
Nozzle Temperature	428 to 522 °F	220 to 272 °C
Processing (Melt) Temp	428 to 522 °F	220 to 272 °C
Mold Temperature	104 to 176 °F	40 to 80 °C
Injection Rate	Fast	Fast
Back Pressure	75.0 to 150 psi	0.517 to 1.03 MPa

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Notes

¹ Procedure A

² 2.0 in/min (51 mm/min)

³ 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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