

Technical Data Sheet

**Diamond Asa S246**

Acrylonitrile Styrene Acrylate
LyondellBasell Industries
Engineering Plastics

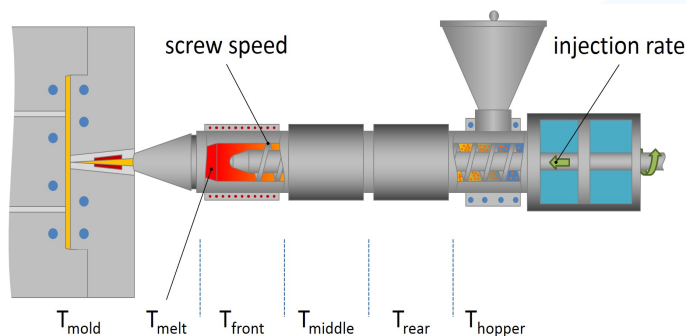
General			
Material Status	• Commercial: Active		
Availability	• North America		
Features	• Good Flexibility • Good Weather Resistance		
Processing Method	• Injection Molding		
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.07	1.07 g/cm ³	ASTM D792
Melt Mass-Flow 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 Modulus - Tangent ² 73°F (23°C), Injection Molded	373000 psi	2570 MPa	ASTM D638
Tensile Strength ² Yield, 73°F (23°C), Injection Molded	6650 psi	45.9 MPa	ASTM D638
Tensile Elongation ² Yield, 73°F (23°C), Injection Molded	2.9 %	2.9 %	ASTM D638
Flexural Modulus - Tangent ³ 0.125 in (3.18 mm), 2.00 in (50.8 mm) Span	362000 psi	2500 MPa	ASTM D790
Flexural Strength ³ Yield, 73°F (23°C), 0.125 in (3.18 mm), Injection Molded, 2.00 in (50.8 mm) Span	11000 psi	75.8 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact 73°F (23°C), 0.125 in (3.18 mm)	2.3 ft·lb/in	120 J/m	ASTM D256
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm), Injection Molded	174 °F	78.9 °C	ASTM D648
Vicat Softening Temperature	223 °F	106 °C	ASTM D1525 ⁴

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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	0.02 %	0.02 %
Suggested Shot Size	40 to 70 %	40 to 70 %
Rear Temperature	446 to 480 °F	230 to 249 °C
Middle Temperature	450 to 500 °F	232 to 260 °C
Front Temperature	455 to 500 °F	235 to 260 °C
Nozzle Temperature	428 to 500 °F	220 to 260 °C
Processing (Melt) Temp	428 to 500 °F	220 to 260 °C
Mold Temperature	150 to 180 °F	66 to 82 °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 Type I, 2.0 in/min (51 mm/min)

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

⁴ Rate B (120°C/h), 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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