

Technical Data Sheet

**Diamond Asa C1030**

Acrylonitrile Styrene Acrylate
LyondellBasell Industries
Engineering Plastics

General

Material Status	• Commercial: Active		
Availability	• North America		
Features	• Good Colorability	• Good Weather Resistance	
Processing Method	• Extrusion	• Injection Molding	

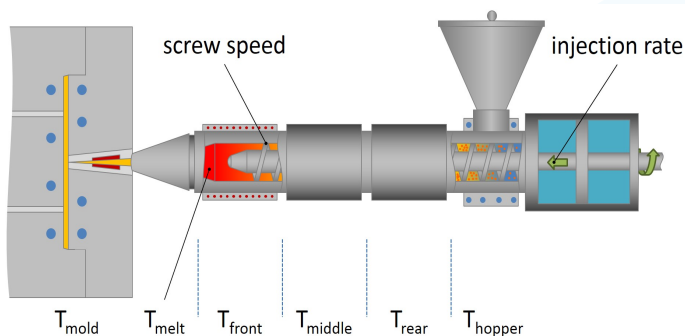
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.10	1.10 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) ¹ (220°C/10.0 kg)	10 g/10 min	10 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ² (Yield)	6650 psi	45.9 MPa	ASTM D638
Tensile Elongation ² (Break)	30 %	30 %	ASTM D638
Flexural Modulus - Tangent ³ 0.125 in (3.18 mm), 2.00 in (50.8 mm) Span	286000 psi	1970 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)	2.5 ft-lb/in	130 J/m	ASTM D256
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed, 0.125 in (3.18 mm), Injection Molded	178 °F	81.1 °C	ASTM D648
264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm)	154 °F	67.8 °C	
Vicat Softening Temperature	203 °F	95.0 °C	

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 to 185 °F	80 to 85 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Suggested Max Moisture	0.02 %	0.02 %
Suggested Shot Size	40 to 70 %	40 to 70 %
Rear Temperature	446 to 500 °F	230 to 260 °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	160 to 180 °F	71 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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