

Technical Data Sheet

Diamond Asa S246

Acrylonitrile Styrene Acrylate

LyondellBasell Industries

Engineering Plastics

General			
Features	• Good Flexibility • Good Weather Resistance		
Agency Ratings	• EU 2002/96/EC (WEEE)		
RoHS Compliance	• RoHS Compliant		
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

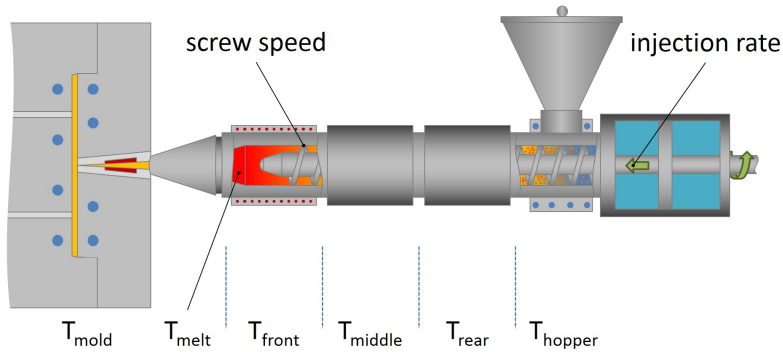
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact 73°F (23°C), 0.125 In (3.18 Mm)	2.3 ft-lb/in	120 J/m	ASTM D256

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

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.