Technical Data Sheet

Diamond Asa C1030

Acrylonitrile Styrene Acrylate
LyondellBasell Industries
Engineering Plastics

General		
Features	• Good Colorability	• Good Weather Resistance
Agency Ratings	• EC 1907/2006 (REACH)	• EU 2002/96/EC (WEEE)
RoHS Compliance	• RoHS Compliant	
Processing Method	• Extrusion	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.10	1.10 g/cm³	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]			ASTM D790
0.125 In (3.18 Mm), 2.00 In (50.8 Mm) Span	286000 psi	1970 MPa	
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Notched Izod Impact			ASTM D256
73°f (23°c), 0.125 In (3.18 Mm)	2.5 ft·lb/in	130 J/m	
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 Psi (0.45 Mpa), Unannealed, 0.125 In (3.18 Mm), Injection Molded	178 °F	81.1 °C	
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	ASTM D1525 [4]

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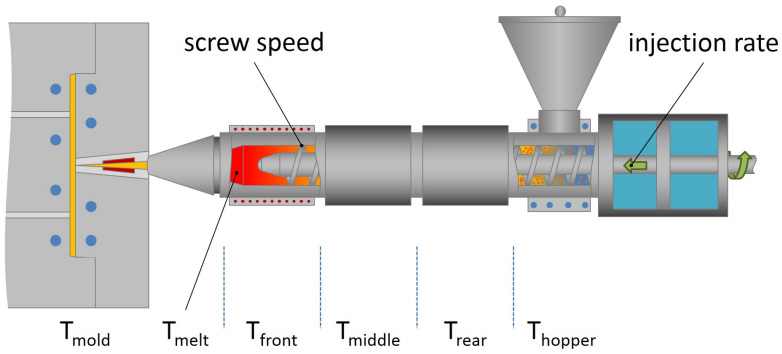

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 to 185 °F	80 to 85 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Suggested Max Moisture	0.02 %	0.02 %
Suggested Shot Size	40 to 70 %	40 to 70 %
Rear Temperature	446 to 500 °F	230 to 260 °C
Middle Temperature	450 to 500 °F	232 to 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

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.