Technical Data Sheet

Diamond Asa C1030H

Acrylonitrile Styrene Acrylate
LyondellBasell Industries
Engineering Plastics

Product Description
Diamond ASA C1030H is a High-Heat Acrylonitrile Styrene Acrylate (ASA) product with excellent Heat-Aging and Weathering properties; Very High Gloss; High Distinctiveness of Image (DOI). ASA C1030H is readily processed by Extrusion and Injection Molding and is available in North America.

General			
Features	• Good Colorability	• Good Weather Resistance	• High Gloss
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]	1.08	1.08 g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
220°c/10.0 Kg [2]	6.0 g/10 min	6.0 g/10 min	
230°c/3.8 Kg	1.4 g/10 min	1.4 g/10 min	
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Strength			ASTM D638
Yield [3]	6960 psi	48.0 MPa	
Break [4]	5510 psi	38.0 MPa	
Tensile Elongation [3] (Break)	28 %	28 %	ASTM D638
Flexural Modulus - 1% Secant [5] (0.125 In (3.18 Mm))	362000 psi	2500 MPa	ASTM D790
Flexural Strength [5] (Yield)	4900 psi	33.8 MPa	ASTM D790
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Notched Izod Impact (73°f (23°c))	3.3 ft·lb/in	180 J/m	ASTM D256
Instrumented Dart Impact [6]			ASTM D3763
Total Energy	372 in·lb	42.0 J	
-4°f (-20°c), Total Energy	53.1 in·lb	6.00 J	
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Rockwell Hardness (R-scale)	101	101	ASTM D785
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 Psi (0.45 Mpa), Unannealed, Injection Molded	208 °F	98.0 °C	
264 Psi (1.8 Mpa), Unannealed	183 °F	84.0 °C	
Vicat Softening Temperature			
--	234 °F	112 °C	ASTM D1525 [7]
--	210 °F	99.0 °C	ASTM D1525 [8]

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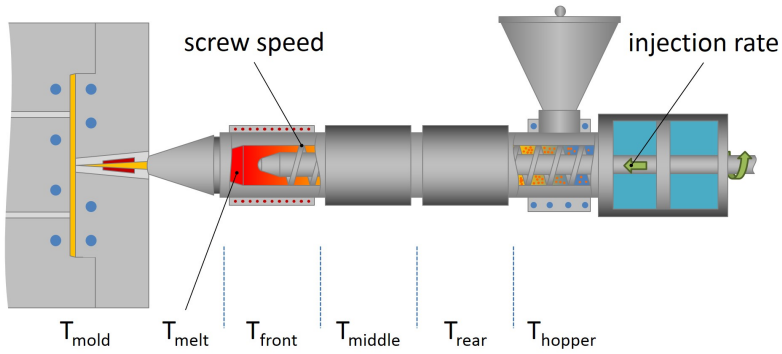

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 to 185 °F	80 to 85 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Suggested Max Moisture	0.02 %	0.02 %
Suggested Shot Size	40 to 70 %	40 to 70 %
Rear Temperature	446 to 500 °F	230 to 260 °C
Middle Temperature	450 to 500 °F	232 to 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] ASTM D792A
[2] Procedure A
[3] Type I, 2.0 in/min (50 mm/min)
[4] 2.0 in/min (50 mm/min)
[5] 0.079 in/min (2.0 mm/min)
[6] 22.0 ft/sec (6.70 m/sec)
[7] Loading 1 (10 N)
[8] Rate B (120°C/h), Loading 2 (50 N)

Notes

These are typical property values not to be construed as specification limits.