

Technical Data Sheet

Diamond ASA C1030H Natural



Acrylonitrile Styrene Acrylate

Product Description

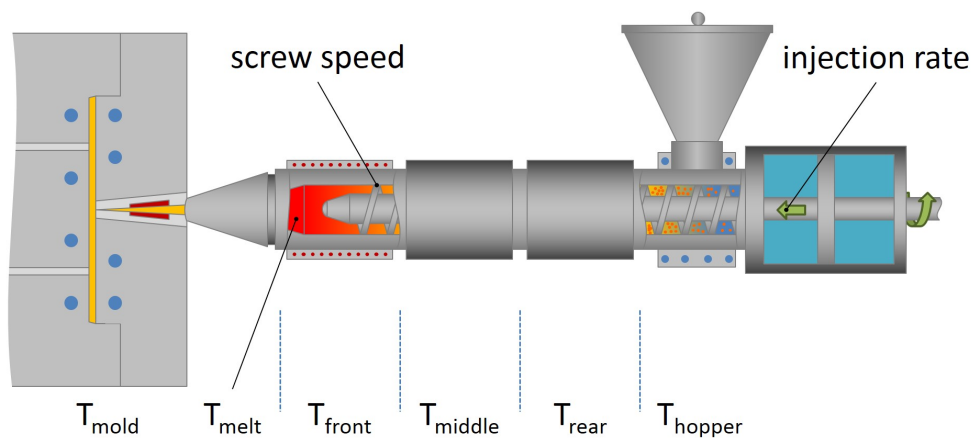
Diamond ASA C1030H is a High-Heat Acrylonitrile Styrene Acrylate (ASA) product with excellent Heat-Aging and Weathering properties; Very High Gloss; High Distinctiveness of Image (DOI). ASA C1030H is readily processed by Extrusion and Injection Molding and is available in North America.

Regulatory Status

For regulatory compliance information, see *Diamond* ASA C1030H Natural [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	North America
Processing Method	Extrusion; Injection Molding
Attribute	Good Colorability; Good Weather Resistance; High Gloss

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate			
(230 °C/3.8 kg)	1.4	g/10 min	ASTM D1238
(220 °C/10.0 kg, Procedure A)	6.0	g/10 min	ASTM D1238
Density - Specific Gravity	1.08	g/cm ³	ASTM D792
Mechanical			
Tensile Strength at Yield, (50 mm/min, Type I)	48.0	MPa	ASTM D638
Flexural Strength at Yield, (2.0 mm/min)	33.8	MPa	ASTM D790
Tensile Strength at Break, (50 mm/min)	38.0	MPa	ASTM D638
Flexural Modulus, (2.0 mm/min, 3.18 mm, 1% Secant)	2500	MPa	ASTM D790
Tensile Elongation at Break, (50 mm/min, Type I)	28	%	ASTM D638
Impact			
Instrumented Dart Impact			
(Total Energy, 6.70 m/sec)	42.0	J	ASTM D3763
(-20 °C, Total Energy, 6.70 m/sec)	6.00	J	ASTM D3763
Notched Izod Impact, (23 °C)	180	J/m	ASTM D256
Hardness			
Rockwell Hardness, (R-Scale)	101		ASTM D785
Thermal			
Vicat Softening Temperature, (Loading 1 (10 N))	112	°C	ASTM D1525
Deflection Temperature Under Load Unannealed (264 psi)	84	°C	ASTM D648
Deflection Temperature Under Load Unannealed (66 psi), (Injection Molded)	98.0	°C	ASTM D648



Injection Parameters	Nominal Value	Units
Drying Time	4.0 to 6.0	hr
Drying Temperature	80 to 85	°C
Suggested Max Moisture	0.02	%
Nozzle Temperature	220 to 260	°C
Processing (Melt) Temp	220 to 260	°C
Front Temperature	235 to 260	°C
Suggested Shot Size	40 to 70	%
Middle Temperature	232 to 260	°C
Rear Temperature	230 to 260	°C
Injection Rate	Fast	
Back Pressure	0.517 to 1.03	MPa
Mold Temperature	71 to 82	°C

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.

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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