Technical Data Sheet

Diamond ABS 9501 1001SNAT

Acrylonitrile Butadiene Styrene

Product Description

Diamond ABS 9501 1001SNAT is a Acrylonitrile Butadiene Styrene material and is typically used in Injection Molding applications. Features include: Ultra High Impact Resistance, and Ultra High Stiffness.

Processing Method	Injection Molding
Attribute	Ultra High Impact Resistance; Ultra High Stiffness
Forms	Pellets
Appearance	Colors Available

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate			
(230 °C/3.8 kg, Procedure A)	1.2	g/10 min	ASTM D1238
(220 °C/10.0 kg, Procedure A)	7.3	g/10 min	ASTM D1238
Density - Specific Gravity, (Method A)	1.02	g/cm³	ASTM D792
Mechanical			
Tensile Strength at Yield, (50 mm/min, 23 °C, 3.18 mm, Injection Molded)	41.5	MPa	ASTM D638
Tensile Strength at Break, (50 mm/min, 23 °C, 3.18 mm, Injection Molded)	31.8	MPa	ASTM D638
Flexural Modulus, (1.3 mm/min, 23 °C, 3.18 mm, Injection Molded)	1900	MPa	ASTM D790
Tensile Elongation at Break, (50 mm/min, 23 °C, Injection Molded)	17	%	ASTM D638
Flexural Strength, (1.3 mm/min, 23 °C, 3.18 mm, Injection Molded)	60.5	MPa	ASTM D790
Impact			
Instrumented Dart Impact			
(0 °C, 2.04 m/sec)	4.16	J	ASTM D3763
(23 °C, 2.04 m/sec)	4.11	J	ASTM D3763
Notched Izod Impact			
(-20 °C, 3.18 mm)	290	J/m	ASTM D256
(0 °C, 3.18 mm)	330	J/m	ASTM D256
(23 °C, 3.18 mm, Injection Molded)	430	J/m	ASTM D256
Thermal			
Deflection Temperature Under Load Unannealed (264 psi)	76	°C	ASTM D648
Deflection Temperature Under Load Unannealed (66 psi)	89	°C	ASTM D648
Optical			
Gloss, (60°)	90		ASTM D523

Injection Parameters	Nominal Value	Units
Drying Time	2.0 to 4.0	hr
Drying Temperature	80 to 85	°C
Suggested Max Moisture	0.1	%
Front Temperature	190 to 250	°C
Middle Temperature	190 to 250	°C
Rear Temperature	190 to 250	°C
Injection Rate	Moderate-Fast	
Mold Temperature	40 to 80	°C