

Technical Data Sheet

Diamond SAN 300 PELLETNAT

Styrene Acrylonitrile

Product Description

Diamond SAN 300 PELLETNAT is a Styrene Acrylonitrile material and is typically used in Injection Molding applications.

Processing Method Injection Molding

Appearance Natural Color

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate			
(200 °C/5.0 kg, Procedure A)	8.0	g/10 min	ASTM D1238
(230 °C/3.8 kg, Procedure A)	31	g/10 min	ASTM D1238
Density - Specific Gravity	1.07	g/cm ³	ASTM D792
Mechanical			
Tensile Strength at Yield, (51 mm/min)	59.3	MPa	ASTM D638
Flexural Modulus, (1.3 mm/min, Tangent)	3170	MPa	ASTM D790
Impact			
Notched Izod Impact, (23 °C, 3.18 mm)	21	J/m	ASTM D256
Hardness			
Rockwell Hardness, (R-Scale)	123		ASTM D785
Thermal			
Vicat Softening Temperature, (Loading 1 (10 N))	100	°C	ASTM D1525
Deflection Temperature Under Load Unannealed (264 psi), (3.18 mm)	96.7	°C	ASTM D648

Injection Parameters	Nominal Value	Units
Drying Time	2.0 to 4.0	hr
Drying Temperature	71 to 82	°C
Clamp Tonnage	2.8 to 4.1	kN/cm ²
Nozzle Temperature	193 to 232	°C
Processing (Melt) Temp	193 to 216	°C
Front Temperature	193 to 232	°C
Suggested Shot Size	40 to 75	%
Middle Temperature	182 to 221	°C
Rear Temperature	160 to 182	°C
Injection Rate	Moderate-Fast	
Back Pressure	0.517 to 1.03	MPa
Mold Temperature	27 to 77	°C
Injection Pressure	0.414 to 7.58	MPa