

Technical Data Sheet

Diamond ASA T120 5971GRY

Acrylonitrile Styrene Acrylate

Product Description

Diamond ASA T-120 is an Acrylonitrile Styrene Acrylate (ASA) product. It can be processed by injection molding and is available in North America. Ta Daa!

Processing Method	Injection Molding
Attribute	Good Weather Resistance; High Heat Resistance
Forms	Pellets

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate			
(200 °C/5.0 kg, Procedure A)	0.70	g/10 min	ASTM D1238
(230 °C/3.8 kg, Procedure A)	2.8	g/10 min	ASTM D1238
Density - Specific Gravity	1.07	g/cm ³	ASTM D792
Mechanical			
Tensile Strength at Yield, (51 mm/min)	47.4	MPa	ASTM D638
Flexural Modulus, (1.3 mm/min, Tangent)	2390	MPa	ASTM D790
Impact			
Notched Izod Impact, (23 °C, 3.18 mm)	91	J/m	ASTM D256
Hardness			
Rockwell Hardness, (R-Scale)	104		ASTM D785
Thermal			
Vicat Softening Temperature, (Loading 1 (10 N))	123	°C	ASTM D1525
Deflection Temperature Under Load Unannealed (264 psi)			
(3.18 mm)	92.2	°C	ASTM D648
(6.35 mm)	100	°C	ASTM D648
Coefficient of Linear Thermal Expansion (CLTE), Flow, (-30 to 80 °C)	6.7E-5	cm/cm/°C	ASTM D696

Injection Parameters	Nominal Value	Units
Drying Time	2.0 to 4.0	hr
Drying Temperature	80 to 85	°C
Suggested Max Moisture	0.1	%
Nozzle Temperature	220 to 272	°C
Processing (Melt) Temp	220 to 272	°C
Front Temperature	235 to 272	°C
Suggested Shot Size	40 to 70	%
Middle Temperature	232 to 265	°C
Rear Temperature	230 to 260	°C
Injection Rate	Fast	
Back Pressure	0.517 to 1.03	MPa
Mold Temperature	40 to 80	°C