

Technical Data Sheet

Diamond ASA S210 50608 UVGRY



Acrylonitrile Styrene Acrylate

Product Description

Diamond ASA S210 50608 UVGRY is a Acrylonitrile Styrene Acrylate material and is typically used in Injection Molding applications. Features include: Good Weather Resistance, Medium Heat Resistance, and Medium Impact Resistance.

Processing Method Injection Molding

Attribute Good Weather Resistance; Medium Heat Resistance; Medium Impact Resistance

Forms Pellets

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate			
(200 °C/5.0 kg, Procedure A)	1.8	g/10 min	ASTM D1238
(230 °C/3.8 kg, Procedure A)	5.4	g/10 min	ASTM D1238
(220 °C/10.0 kg, Procedure A)	18	g/10 min	ASTM D1238
Density - Specific Gravity	1.06	g/cm ³	ASTM D792
Mechanical			
Tensile Elongation at Yield, (51 mm/min, Type I)	2.0	%	ASTM D638
Tensile Strength at Yield, (51 mm/min, Type I)	45.9	MPa	ASTM D638
Flexural Modulus, (1.3 mm/min, Tangent)	2340	MPa	ASTM D790
Tensile Elongation at Break, (51 mm/min, Type I)	25	%	ASTM D638
Impact			
Notched Izod Impact, (23 °C, 3.18 mm)	100	J/m	ASTM D256
Thermal			
Vicat Softening Temperature, (Loading 1 (10 N))	105	°C	ASTM D1525
Deflection Temperature Under Load Unannealed (264 psi)			
(3.18 mm)	83.9	°C	ASTM D648
(6.35 mm)	88.9	°C	ASTM D648

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