

Technical Data Sheet

Diamond ASA S170UV.50283 Light Gray



Acrylonitrile Styrene Acrylate

Product Description

Diamond ASA S170UV.50283 Light Gray is a Acrylonitrile Styrene Acrylate material and is typically used in Injection Molding applications. Features include: Good Weather Resistance, and High Impact Resistance.

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

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (220 °C/10.0 kg, Procedure A)	9.0	g/10 min	ASTM D1238
Density - Specific Gravity	1.09	g/cm ³	ASTM D792
Mechanical			
Tensile Strength at Yield, (51 mm/min)	40.0	MPa	ASTM D638
Flexural Modulus, (1.3 mm/min, Tangent)	2140	MPa	ASTM D790
Impact			
Notched Izod Impact, (23 °C, 3.18 mm)	320	J/m	ASTM D256
Hardness			
Rockwell Hardness, (R-Scale)	93		ASTM D785
Thermal			
Vicat Softening Temperature, (Loading 1 (10 N))	104	°C	ASTM D1525
Deflection Temperature Under Load Unannealed (264 psi), (3.18 mm)	80.0	°C	ASTM D648
UL Information			
Flame Rating, (1.5 mm)	HB		UL 94
UL File Number, (USA)	E150937		
Outdoor Suitability			UL 746C

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