Technical Data Sheet

Diamond ASA S246 1818 UVBLK

Acrylonitrile Styrene Acrylate

Product Description

Diamond ASA S246 1818 UVBLK is a Acrylonitrile Styrene Acrylate material and is typically used in Injection Molding applications. Features include: Good Flexibility, and Good Weather Resistance.

Processing Method	Injection Molding
Attribute	Good Flexibility; Good Weather Resistance

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (220 °C/10.0 kg, Procedure A)	20	g/10 min	ASTM D1238
Density - Specific Gravity	1.07	g/cm³	ASTM D792
Mechanical			
Tensile Elongation at Yield, (51 mm/min, 23 °C, Injection Molded, Type I)	2.9	%	ASTM D638
Tensile Strength at Yield, (51 mm/min, 23 °C, Injection Molded, Type I)	45.9	MPa	ASTM D638
Flexural Modulus, (1.3 mm/min, 3.18 mm, Method I (3 point load), 50.8 mm, Tangent)	2500	MPa	ASTM D790
Tensile Modulus, (51 mm/min, 23 °C, Injection Molded, Type I, Tangent)	2570	MPa	ASTM D638
Impact			
Notched Izod Impact, (23 °C, 3.18 mm)	120	J/m	ASTM D256
Thermal			
Deflection Temperature Under Load Unannealed (264 psi), (3.18 mm, Injection Molded)	78.9	°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	0.02	%
Nozzle Temperature	220 to 260	°C
Processing (Melt) Temp	220 to 260	°C
Front Temperature	235 to 260	°C
Suggested Shot Size	40 to 70	%
Middle Temperature	232 to 260	°C
Rear Temperature	230 to 249	°C
Injection Rate	Fast	
Back Pressure	0.517 to 1.03	MPa
Mold Temperature	66 to 82	°C