Technical Data Sheet

Diamond ASA TWP502 8748 UVRED

Acrylonitrile Styrene Acrylate

Product Description

Diamond ASA TWP502 8748 UVRED is a Acrylonitrile Styrene Acrylate material. Features include: Good Weather Resistance.

Attribute	Good Weather Resistance
Forms	Pellets

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate			
(200 °C/5.0 kg, Procedure A)	1.3	g/10 min	ASTM D1238
(230 °C/3.8 kg, Procedure A)	3.9	g/10 min	ASTM D1238
Density - Specific Gravity	1.12	g/cm³	ASTM D792
Mechanical			
Tensile Strength at Yield, (51 mm/min)	34.8	MPa	ASTM D638
Flexural Modulus, (1.3 mm/min, Procedure B, Method I (3 point load))	1340	MPa	ASTM D790
Impact			
Notched Izod Impact, (3.18 mm, Method A)	110	J/m	ASTM D256
Hardness			
Rockwell Hardness, (R-Scale)	98		ASTM D785
Thermal			
Vicat Softening Temperature, (Loading 1 (10 N))	93.9	°C	ASTM D1525
Deflection Temperature Under Load Annealed (264 psi), (3.18 mm)	86.1	°C	ASTM D648
Deflection Temperature Under Load Annealed (66 psi), (3.18 mm)	93.9	°C	ASTM D648
Deflection Temperature Under Load Unannealed (264 psi), (3.18 mm)	68.9	°C	ASTM D648
Deflection Temperature Under Load Unannealed (66 psi), (3.18 mm)	82.8	°C	ASTM D648
Optical			
Haze, (3000 µm)	8.00	%	ASTM D1003
Light Transmittance, (3000 µm)	88.0	%	ASTM D1003

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