Technical Data Sheet

Diamond ABS 9501 5A107 MAROON

Acrylonitrile Butadiene Styrene

Product Description

Diamond ABS 9501 5A107 MAROON is a Acrylonitrile Butadiene Styrene material and is typically used in Extrusion, Sheet Extrusion, Thermoforming applications. Features include: Ultra High Impact Resistance.

Processing Method	Extrusion; Sheet Extrusion
Attribute	Ultra High Impact Resistance
Forms	Pellets
Appearance	Colors Available
Application	Marine Applications; Sheet; Thermoforming Applications

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (200 °C/5.0 kg, Procedure A)	0.40 to 1.2	g/10 min	ASTM D1238
Density - Specific Gravity	1.04	g/cm³	ASTM D792
Mechanical			
Tensile Strength at Yield, (51 mm/min)	43.0	MPa	ASTM D638
Tensile Strength at Break	34	MPa	ASTM D638
Flexural Modulus, (1.3 mm/min, 2% Secant)	2300	MPa	ASTM D790
Tensile Elongation at Break	20	%	ASTM D638
Flexural Strength	69	MPa	ASTM D790
Impact			
Notched Izod Impact			
(23 °C)	520	J/m	ASTM D256
(-40 °C)	150	J/m	ASTM D256
Hardness			
Rockwell Hardness, (R-Scale)	101		ASTM D785
Thermal			
Vicat Softening Temperature, (Loading 1 (10 N))	105	°C	ASTM D1525
Deflection Temperature Under Load Annealed (264 psi), (3.18 mm)	95.0	°C	ASTM D648
Deflection Temperature Under Load Unannealed (264 psi), (3.18 mm)	75.6	°C	ASTM D648
Deflection Temperature Under Load Unannealed (66 psi), (3.18 mm)	90.7	°C	ASTM D648
UL Information			
Flame Rating, (1.5 mm)	HB		UL 94
UL File Number	E119088		

Extrusion Parameters	Nominal Value	Units
Cylinder Zone 1 Temp.	177 to 185	°C
Drying Time	2.0 to 4.0	hr
Cylinder Zone 5 Temp.	218 to 232	°C
Suggested Max Moisture	<0.10	%
Cylinder Zone 3 Temp.	199 to 210	°C
Drying Temperature	80 to 85	°C
Cylinder Zone 2 Temp.	191 to 196	°C
Cylinder Zone 4 Temp.	213 to 218	°C