Technical Data Sheet

Diamond ABS 3500 1765BLK

Acrylonitrile Butadiene Styrene

Product Description

Diamond ABS 3500 1765BLK is a Acrylonitrile Butadiene Styrene material and is typically used in Injection Molding applications. Features include: Medium Impact Resistance.

Processing Method	Injection Molding
Attribute	Medium Impact Resistance
Forms	Pellets
Appearance	Natural Color

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate			
(200 °C/5.0 kg, Procedure A)	2.9	g/10 min	ASTM D1238
(230 °C/3.8 kg, Procedure A)	8.5	g/10 min	ASTM D1238
Density - Specific Gravity	1.04	g/cm³	ASTM D792
Mechanical			
Tensile Elongation at Yield, (51 mm/min)	2.4	%	ASTM D638
Tensile Strength at Yield, (51 mm/min)	43.2	MPa	ASTM D638
Tensile Strength at Break, (51 mm/min)	34.9	MPa	ASTM D638
Flexural Modulus, (1.3 mm/min, Tangent)	2350	MPa	ASTM D790
Tensile Elongation at Break, (51 mm/min)	43	%	ASTM D638
Impact			
Notched Izod Impact, (23 °C, 3.18 mm)	190	J/m	ASTM D256
Hardness			
Rockwell Hardness, (R-Scale)	108		ASTM D785
Thermal			
Vicat Softening Temperature, (Loading 1 (10 N))	107	°C	ASTM D1525
Deflection Temperature Under Load Unannealed (264 psi), (3.18 mm)	77.2	°C	ASTM D648
UL Information			
Flame Rating, (1.5 mm)	HB		UL 94
UL File Number	E51193		

Injection Parameters	Nominal Value	Units
Drying Time	2.0 to 4.0	hr
Drying Temperature	80 to 85	°C
Suggested Max Moisture	0.1	%
Front Temperature	190 to 250	°C
Middle Temperature	190 to 250	°C
Rear Temperature	190 to 250	°C
Injection Rate	Moderate-Fast	
Mold Temperature	40 to 80	°C