

Amodel® A-4160 L

Polyphthalamide
Solvay Specialty Polymers

Message:

Amodel® A-4160 L is a 60% glass reinforced polyphthalamide (PPA) which exhibits high modulus, a high heat deflection temperature, and exceptional creep resistance. This material was designed to replace metal and is particularly suited for corrosion sensitive applications. Its rapid crystallization and good flow characteristics allow shorter cycles for enhanced molding productivity.
Black: A-4160 L BK324

General Information	
Filler / Reinforcement	Glass fiber reinforced material, 60% filler by weight
Additive	Lubricant demoulding
Features	Super rigidity Good dimensional stability Low CLTE High strength Fast molding cycle Good creep resistance Good chemical resistance Hot water formability Good toughness Lubrication Non-corrosive
Uses	Electrical/Electronic Applications Industrial application Machine/mechanical parts Metal substitution Connector Automotive Electronics Application in Automobile Field Mobile phone Shell Camera application
RoHS Compliance	RoHS compliance
Appearance	Black
Forms	Particle
Processing Method	Water temperature mold injection molding

Physical	Nominal Value	Unit	Test Method
Density	1.75	g/cm ³	ISO 1183/A
Molding Shrinkage			ISO 294-4
Transverse flow	0.80	%	ISO 294-4
Flow	0.50	%	ISO 294-4
Water Absorption (23°C, 24 hr)	0.19	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	23300	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	244	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	1.4	%	ISO 527-2
Flexural Modulus (23°C)	19300	MPa	ISO 178
Flexural Stress (23°C)	385	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	13	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	130	kJ/m ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	304	°C	ISO 75-2/A
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	4.0	hr	
Rear Temperature	318 - 324	°C	
Front Temperature	327 - 332	°C	
Processing (Melt) Temp	329 - 343	°C	
Mold Temperature	66 - 93	°C	
Injection instructions			

射出压力:3~4英寸/秒

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