

Amodel® A-8940 HS

Polyphthalamide
Solvay Specialty Polymers

Message:

Amodel® A-8940 HS is a 40% glass-fiber-reinforced, heat-stabilized polyphthalamide (PPA) with a high heat deflection temperature and very high tensile strength. Excellent creep resistance and low moisture absorption are also characteristic of this resin.
Black: A-8940 HS BK 328

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 40% filler by weight		
Additive	heat stabilizer		
Features	Good dimensional stability		
	Low hygroscopicity		
	Rigidity, high		
	Rigid, good		
	High strength		
	High temperature strength		
	Good creep resistance		
	Good chemical resistance		
	Heat resistance, high		
Uses	Electrical appliances		
	Industrial application		
	Machine/mechanical parts		
	Metal substitution		
	Connector		
	Automotive Electronics		
	Application in Automobile Field		
	Shell		
	Consumer goods application field		
Appearance	Black		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.57	g/cm ³	ISO 1183/A
Molding Shrinkage			ASTM D955
Flow	0.34	%	ASTM D955
Transverse flow	0.68	%	ASTM D955
Water Absorption (24 hr)	0.15	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method

Tensile Modulus (23°C)	15100	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	243	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.0	%	ISO 527-2
Flexural Modulus (23°C)	14500	MPa	ISO 178
Flexural Strength (Break, 23°C)	357	MPa	ISO 178
Flexural Strain at Break (23°C)	2.6	%	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	9.5	kJ/m ²	ISO 179/1eA
23°C	9.7	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	59	kJ/m ²	ISO 179/1eU
23°C	60	kJ/m ²	ISO 179/1eU
Notched Izod Impact (23°C)	10	kJ/m ²	ISO 180/A
Unnotched Izod Impact Strength			ISO 180/A
-30°C	55	kJ/m ²	ISO 180/A
23°C	59	kJ/m ²	ISO 180/A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	311	°C	ISO 75-2/Bf
1.8 MPa, not annealed	293	°C	ISO 75-2/Af
Melting Temperature	323	°C	ISO 11357-3
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.030 - 0.060	%	
Rear Temperature	316 - 329	°C	
Middle Temperature	316 - 329	°C	
Front Temperature	324 - 335	°C	
Processing (Melt) Temp	321 - 343	°C	
Mold Temperature	170	°C	
Injection instructions			

Storage:

Amodel® compounds are shipped in moisture-resistant packages at moisture levels according to specifications. Sealed, undamaged bags should be preferably stored in a dry room at a maximum temperature of 50°C (122°F) and should be protected from possible damage. If only a portion of a package is used, the remaining material should be transferred into a sealable container. It is recommended that Amodel® resins be dried prior to molding following the recommendations found in this datasheet and/or in the Amodel® processing guide.

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Recommended distributors for this material

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