

Amodel® A-1565 HS

Polyphthalamide
Solvay Specialty Polymers

Message:

AMODEL A- 1565 HS is a polyphthalamide (PPA) reinforced 65% glass fiber and mineral fiber. It is mainly aimed at high cost-effective products that require high rigidity, good dimensional stability and good rigidity at high temperatures. The brand has both high deformation temperature and bending modulus. -black: A- 1565 HS BK 324

General Information				
UL YellowCard		E95746-253221	E161096-224270	
Filler / Reinforcement		Glass \mineral, 65% filler by weight		
Additive		heat stabilizer		
Features		Super rigidity		
		Good dimensional stability		
		Low CLTE		
		Low warpage		
		Good creep resistance		
		Good chemical resistance		
		Heat resistance, high		
		Lubrication		
Uses		Pump parts		
		Industrial components		
		Industrial application		
		Parts under the hood of a car		
		Application in Automobile Field		
		Shell		
RoHS Compliance		RoHS compliance		
Appearance		Black		
Forms		Particle		
Processing Method		Injection molding		
Multi-Point Data		Viscosity vs. Shear Rate (ISO 11403-2)		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.90	--	g/cm³	ISO 1183/A
Molding Shrinkage				ASTM D955
Flow	0.30	--	%	ASTM D955
Transverse flow	0.50	--	%	ASTM D955
Water Absorption (24 hr)	0.10	--	%	ASTM D570
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus				

--	20700	20800	MPa	ASTM D638
23°C	19700	--	MPa	ISO 527-2
100°C	15400	--	MPa	ISO 527-2
150°C	5720	--	MPa	ISO 527-2
175°C	5100	--	MPa	ISO 527-2
Tensile Stress				
Fracture, 23°C	138	--	MPa	ISO 527-2
Fracture, 100°C	91.7	--	MPa	ISO 527-2
Fracture, 150°C	46.2	--	MPa	ISO 527-2
Fracture, 175°C	32.4	--	MPa	ISO 527-2
--	131	123	MPa	ASTM D638
Tensile Elongation				
Fracture	1.2	1.2	%	ASTM D638
Fracture, 23°C	1.0	--	%	ISO 527-2
Fracture, 100°C	1.3	--	%	ISO 527-2
Fracture, 150°C	2.4	--	%	ISO 527-2
Fracture, 175°C	1.8	--	%	ISO 527-2
Flexural Modulus				
--	17900	18000	MPa	ASTM D790
23°C	9100	--	MPa	ISO 178
100°C	6830	--	MPa	ISO 178
150°C	2480	--	MPa	ISO 178
175°C	2280	--	MPa	ISO 178
Flexural Strength				
--	210	196	MPa	ASTM D790
23°C	211	--	MPa	ISO 178
100°C	163	--	MPa	ISO 178
150°C	69.6	--	MPa	ISO 178
175°C	55.8	--	MPa	ISO 178
Compressive Strength (13.0 mm)	189	--	MPa	ASTM D695
Shear Strength	71.0	49.6	MPa	ASTM D732
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (23°C)	3.4	--	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	44	--	kJ/m ²	ISO 179/1eU
Notched Izod Impact				
--	37	32	J/m	ASTM D256
23°C	4.0	--	kJ/m ²	ISO 180/1A
Unnotched Izod Impact				
--	410	--	J/m	ASTM D256
23°C	32	--	kJ/m ²	ISO 180/1U

Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	271	--	°C	ASTM D648, ISO 75-2/A
Melting Temperature	311	--	°C	ISO 11357-3, ASTM D3418
Linear thermal expansion coefficient				ASTM E831
Flow: 0 to 100°C	2.0E-5	--	cm/cm/°C	ASTM E831
Flow: 100 to 200°C	1.7E-5	--	cm/cm/°C	ASTM E831
Lateral: 0 to 100°C	3.7E-5	--	cm/cm/°C	ASTM E831
Lateral: 100 to 200°C	8.1E-5	--	cm/cm/°C	ASTM E831
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	4.0E+14	--	ohms·cm	ASTM D257
Arc Resistance	125	--	sec	ASTM D495
Comparative Tracking Index (CTI)	600	--	V	UL 746
Injection	Dry	Unit		
Drying Temperature	120		°C	
Drying Time	4.0		hr	
Suggested Max Moisture	0.045		%	
Hopper Temperature	79.4		°C	
Rear Temperature	304 - 318		°C	
Front Temperature	316 - 329		°C	
Processing (Melt) Temp	321 - 343		°C	
Mold Temperature	135		°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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