Amodel® A-1625 HS
polyphthalamide

Amodel® A-1625 HS is a carbon and glass-reinforced, heat-stabilized grade of polyphthalamide (PPA). It is formulated for applications requiring the dissipation of static charge. This material is well suited for fuel systems applications requiring low permeation, low swell, and high thermal resistance. It can also be used for components of electrical/electronic systems requiring high strength and stiffness, as well as static charge dissipation.

Amodel® A-1625 HS provides low moisture absorption, excellent dimensional stability and has creep resistance superior to other electrostatic dissipative materials.

- Black: A-1625 HS BK 324

General		
Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific • Europe	• Latin America • North America
Filler / Reinforcement	• Glass Fiber\Carbon Fiber	
Additive	• Heat Stabilizer	
Features	• Chemical Resistant • Creep Resistant • Good Dimensional Stability • Good Stiffness	• High Heat Resistance • High Stiffness • High Temperature Strength • Low Moisture Absorption
Uses	• Automotive Applications • Automotive Electronics • Automotive Under the Hood	• Connectors • Electrical/Electronic Applications • Fuel Lines
RoHS Compliance	• Contact Manufacturer	
Automotive Specifications	• ASTM D4000 PPA0110 G12 KB140 LB001 PA049 YA225 ZE01 ZK02 Color: BK-324 Black • GM GMP.PPA.011 Color: Black • GM GMW16797P-PPA-GF13CF12 Color: Black • IMDS ID 25622745 Color: Black	
Appearance	• Black	
Forms	• Pellets	
Processing Method	• Injection Molding	

Physical	Typical Value	Unit	Test method
Density	1.32	g/cm³	ISO 1183/A
Molding Shrinkage			ISO 294-4
Across Flow	0.60	%	
Flow	0.40	%	
Water Absorption (24 hr, 50.8 mm)	0.32	%	ASTM D570

Mechanical	Typical Value	Unit	Test method
Tensile Modulus			
--	15200	MPa	ASTM D638
--	15000	MPa	ISO 527-1
Tensile Strength	205	MPa	ASTM D638 ISO 527-2
Tensile Elongation			
Break	2.5	%	ASTM D638
Break	2.4	%	ISO 527-2
Flexural Modulus	13500	MPa	ISO 178
Flexural Stress	300	MPa	ISO 178

Impact	Typical Value	Unit	Test method
Notched Izod Impact			
--	120	J/m	ASTM D256
-40°C	8.0	kJ/m²	ISO 180
23°C	11	kJ/m²	ISO 180
Unnotched Izod Impact Strength			ISO 180
-40°C	50	kJ/m²	
23°C	50	kJ/m²	

Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	285	°C	ISO 75-2/B
1.8 MPa, Unannealed	270	°C	ASTM D648
1.8 MPa, Unannealed	275	°C	ISO 75-2/A
Melting Temperature	310	°C	DSC ISO 11357-3

Electrical	Typical Value	Unit	Test method
Volume Resistivity			
--[1]	2.4E+3	ohms·cm	SAE J1645
--	2.0E+3	ohms·m	IEC 62631-3-1
Volume Resistance	20000	ohms	IEC 62631-3-1

Injection	Typical Value	Unit
Drying Temperature	120	°C
Drying Time	4.0	hr
Suggested Max Moisture	0.030 to 0.060	%
Rear Temperature	310	°C
Front Temperature	320	°C
Processing (Melt) Temp	320 to 330	°C
Mold Temperature	135	°C

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Injection Notes

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.

Notes

Typical properties: these are not to be construed as specifications.

[1] 50V

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Safety Data Sheets (SDS) are available by emailing us or contacting your sales representative. Always consult the appropriate SDS before using any of our products.

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