

Solvay Specialty Polymers Amodel® HFZ A-4133L Polyphthalamide (PPA), 33% Glass Fiber

Category : Polymer , Thermoplastic , Polyphthalamide (PPA) , Polyphthalamide (PPA), 30% Glass Fiber Reinforced

Material Notes:

Amodel® HFZ A-4133 L polyphthalamide (PPA) is a 33% glass-reinforced, hot water moldable resin. Key properties include heat resistance, reduced outgassing and high strength and stiffness over a broad temperature range. It also displays low moisture absorption, excellent chemical resistance and excellent electrical properties. Features: Fast Molding Cycle; Good Chemical Resistance; Good Creep Resistance; Good Dimensional Stability; Good Stiffness; High Flow; High Stiffness; High Strength; Hot Water Moldability; Low Moisture Absorption; Lubricated Uses: Automotive Applications; Automotive Electronics; Automotive Under the Hood; Bobbins; Camera Applications; Cell Phones; Connectors; Electrical/Electronic Applications; General Purpose; Industrial Applications; Industrial Parts; Lawn and Garden Equipment; Machine/Mechanical Parts; Metal Replacement Injection Molding Notes: 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. Information provided by Solvay Specialty Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Amodel-HFZ-A-4133L-Polyphthalamide-PPA-33-Glass-Fiber.php

Physical Properties	Metric	English	Comments
Density	1.46 g/cc	0.0527 lb/in ³	ISO 1183
Filler Content	33 %	33 %	Glass Fiber
Water Absorption	0.26 % @Time 86400 sec	0.26 % @Time 24.0 hour	ISO 62
Linear Mold Shrinkage, Flow	0.0050 cm/cm	0.0050 in/in	
Linear Mold Shrinkage, Transverse	0.010 cm/cm	0.010 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	180 MPa	26100 psi	ISO 527-2
Elongation at Break	1.8 %	1.8 %	ISO 527-2
Tensile Modulus	12.0 GPa	1740 ksi	ISO 527-2
Flexural Strength	255 MPa	37000 psi	ISO 178
Flexural Modulus	11.0 GPa	1600 ksi	ISO 178
Izod Impact, Notched (ISO)	8.40 kJ/m ²	4.00 ft-lb/in ²	Type 1, Notch A; ISO 180
Izod Impact, Unnotched (ISO)	40.0 kJ/m ²	19.0 ft-lb/in ²	Type 1; ISO 180

Mechanical Properties	Metric	English	Comments
Charpy Impact, Notched	0.420 J/cmÂ²	0.016 ft-lb/inÂ²	Type I, Edgewise; ISO 179

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	14.0 Âµm/m-Â°C	7.78 Âµin/in-Â°F	2
	@Temperature 150 - 250 Â°C	@Temperature 302 - 482 Â°F	
	20.0 Âµm/m-Â°C	11.1 Âµin/in-Â°F	2
	@Temperature 0.000 - 90.0 Â°C	@Temperature 32.0 - 194 Â°F	
CTE, linear, Transverse to Flow	63.0 Âµm/m-Â°C	35.0 Âµin/in-Â°F	TMA; ASTM E831
	@Temperature 0.000 - 90.0 Â°C	@Temperature 32.0 - 194 Â°F	
	150 Âµm/m-Â°C	83.3 Âµin/in-Â°F	TMA; ASTM E831
	@Temperature 100 - 250 Â°C	@Temperature 212 - 482 Â°F	
Melting Point	327 Â°C	621 Â°F	DSC; ISO 3146
Deflection Temperature at 1.8 MPa (264 psi)	310 Â°C	590 Â°F	Unannealed; ISO 75-2/A
Flammability, UL94	HB	HB	
	@Thickness 0.800 mm	@Thickness 0.0315 in	
Glow Wire Test	800 Â°C	1470 Â°F	Glow Wire Ignition Temperature; IEC 60695-2-13
	800 Â°C	1470 Â°F	Glow Wire Flammability Index, IEC 60695-2-12

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	ASTM D257
Surface Resistance	1.00e+16 ohm	1.00e+16 ohm	ASTM D257
Dielectric Constant	3.7	3.7	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	3.9	3.9	ASTM D150
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	
Dielectric Strength	19.0 kV/mm	483 kV/in	ASTM D149
Dissipation Factor	0.0060	0.0060	ASTM D150

Electrical Properties	@Frequency 60.0 Hz Metric	@Frequency 60.0 Hz English	Comments
	0.016	0.016	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
High Voltage Arc Resistance to Ignition (HVAR)	>= 300 sec	>= 300 sec	UL 746
Hot Wire Ignition, HWI	60 - 120 sec	60 - 120 sec	UL 746
High Amp Arc Ignition, HAI	>= 120 arcs	>= 120 arcs	UL 746
High Voltage Arc-Tracking Rate, HVTR	0.000 - 10.0 mm/min	0.000 - 0.394 in/min	UL 746

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	318 - 324 Â°C	604 - 615 Â°F	
Front Barrel Temperature	327 - 332 Â°C	621 - 630 Â°F	
Melt Temperature	329 - 343 Â°C	624 - 649 Â°F	
Mold Temperature	65.6 - 93.3 Â°C	150 - 200 Â°F	
Drying Temperature	120 Â°C	248 Â°F	
	@Time 14400 sec	@Time 4.00 hour	
Moisture Content	<= 0.045 %	<= 0.045 %	

Descriptive Properties	Value	Comments
Additive	Lubricant; Mold Release	
Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	Latin America	
	North America	
Color	Black; Natural	
Form	Pellets	
Processing Technique	Water-Heated Mold Injection Molding	
RoHS Compliance	RoHS Compliant	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China