

Solvay Specialty Polymers Amodel® A-4133 L Polyphthalamide (PPA), Dry (discontinued **)

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

Material Notes:

Amodel A-4133L polyphthalamide (PPA) is a 33% glass reinforced resin designed to offer high crystallinity when molded in water-cooled molds. Key properties include high heat resistance, reduced outgassing and high strength over broad temperature range. It also exhibits low moisture absorption, excellent chemical resistance and excellent electrical properties. Amodel A-4133 L resin can be used in a variety of automotive electrical and electronic applications. These include connectors, sockets, switches, sensors. It is also a good choice for under-hood enclosures that protect critical control systems such as anti-lock brakes, traction control, steering, electronic engine control, transmission and chassis control units. Its rapid crystallization rate and high flow can result in shorter cycles, thereby enhancing molding productivity and lowering costs. - Black: A-4133 L BK 324 - Natural: A-4133 L NTInjection Notes: Injection Rate: 3 to 4 in/sec Holding Pressure: 50% of injection pressure

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Amodel-A-4133-L-Polyphthalamide-PPA-Dry-nbspdiscontinued-.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.46 g/cc	1.46 g/cc	ASTM D792
Density	1.46 g/cc	0.0527 lb/in ³	ISO 1183
Filler Content	33 %	33 %	Glass Fiber
Water Absorption	0.29 % @Time 86400 sec	0.29 % @Time 24.0 hour	ASTM D570
Linear Mold Shrinkage, Flow	0.0050 cm/cm	0.0050 in/in	ASTM D955
Linear Mold Shrinkage, Transverse	0.010 cm/cm	0.010 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	80.7 MPa @Temperature 175 °C	11700 psi @Temperature 347 °F	ISO 527-2
	89.6 MPa @Temperature 150 °C	13000 psi @Temperature 302 °F	ISO 527-2
	134 MPa @Temperature 100 °C	19400 psi @Temperature 212 °F	ISO 527-2
	193 MPa @Temperature 23.0 °C	28000 psi @Temperature 73.4 °F	ISO 527-2
Tensile Strength	200 MPa	29000 psi	ASTM D638

Mechanical Properties	Metric	English	Comments
Elongation at Break	1.9 %	1.9 %	ISO 527-2
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	3.3 %	3.3 %	ISO 527-2
	@Temperature 100 °C	@Temperature 212 °F	
	3.3 %	3.3 %	ISO 527-2
	@Temperature 150 °C	@Temperature 302 °F	
	4.0 %	4.0 %	ISO 527-2
	@Temperature 175 °C	@Temperature 347 °F	
Tensile Modulus	11.7 GPa	1700 ksi	ASTM D638
	5.79 GPa	840 ksi	ISO 527-2
	@Temperature 175 °C	@Temperature 347 °F	
	6.41 GPa	930 ksi	ISO 527-2
	@Temperature 150 °C	@Temperature 302 °F	
	8.96 GPa	1300 ksi	ISO 527-2
	@Temperature 100 °C	@Temperature 212 °F	
	12.3 GPa	1780 ksi	ISO 527-2
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Flexural Strength	290 MPa	42100 psi	ASTM D790
	114 MPa	16500 psi	ISO 178
	@Temperature 175 °C	@Temperature 347 °F	
	128 MPa	18600 psi	ISO 178
	@Temperature 150 °C	@Temperature 302 °F	
	187 MPa	27100 psi	ISO 178
	@Temperature 100 °C	@Temperature 212 °F	
	269 MPa	39000 psi	ISO 178
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Flexural Modulus	12.3 GPa	1780 ksi	ASTM D790
	4.90 GPa	711 ksi	ISO 178
	@Temperature 175 °C	@Temperature 347 °F	

Mechanical Properties	Metric	English	Comments
	@Temperature 150 °C	@Temperature 302 °F	
	7.72 GPa	1120 ksi	ISO 178
	@Temperature 100 °C	@Temperature 212 °F	
	10.4 GPa	1510 ksi	ISO 178
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Compressive Strength	162 MPa	23500 psi	ASTM D695
Poissons Ratio	0.41	0.41	ASTM E132
Shear Modulus	4.15 - 4.36 GPa	602 - 632 ksi	Calculated
Shear Strength	89.6 MPa	13000 psi	ASTM D732
Izod Impact, Notched	0.694 J/cm	1.30 ft-lb/in	ASTM D256
Izod Impact, Unnotched	4.80 J/cm	8.99 ft-lb/in	ASTM D256
Izod Impact, Notched (ISO)	8.20 kJ/m ²	3.90 ft-lb/in ²	ISO 180/1A
	54.6 kJ/m ²	26.0 ft-lb/in ²	ISO 180/1U
Charpy Impact Unnotched	8.60 J/cm ²	40.9 ft-lb/in ²	ISO 179/1eU
Charpy Impact, Notched	0.800 J/cm ²	3.81 ft-lb/in ²	ISO 179/1eA

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	11.0 µm/m-°C	6.11 µin/in-°F	TMA; ASTM E831
	@Temperature 100 - 200 °C	@Temperature 212 - 392 °F	
CTE, linear, Transverse to Flow	22.0 µm/m-°C	12.2 µin/in-°F	TMA; ASTM E831
	@Temperature 0.000 - 100 °C	@Temperature 32.0 - 212 °F	
CTE, linear, Transverse to Flow	77.0 µm/m-°C	42.8 µin/in-°F	TMA; ASTM E831
	@Temperature 0.000 - 100 °C	@Temperature 32.0 - 212 °F	
Melting Point	140 µm/m-°C	77.8 µin/in-°F	TMA; ASTM E831
	@Temperature 100 - 200 °C	@Temperature 212 - 392 °F	
Deflection Temperature at 0.46 MPa (66 psi)	320 °C	608 °F	Annealed; ASTM D648

Thermal Properties	@Thickness 3.20 mm Metric	@Thickness 0.126 in English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	310 °C	590 °F	Unannealed; ISO 75-2/A
	300 °C	572 °F	Annealed; ASTM D648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Flammability, UL94	HB	HB	UL 94
	@Thickness 3.20 mm	@Thickness 0.126 in	

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

Descriptive Properties	Value	Comments
Additive	Lubricant	
	Mold Release	
Appearance	Black	
	Natural Color	
Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
Features	Fast Molding Cycle	
	Good Chemical Resistance	
	Good Creep Resistance	
	Good Dimensional Stability	

Descriptive Properties	Value <i>Good Stiffness</i>	Comments
	High Stiffness	
	High Strength	
	Hot Water Moldability	
	Low Moisture Absorption	
	Lubricated	
Forms	Pellets	
Processing Method	Water-Heated Mold Injection Molding	
Uses	Automotive Applications	
	Automotive Electronics	
	Automotive Under the Hood	
	General Purpose	
	Housings	
	Industrial Applications	
	Industrial Parts	
	Lawn and Garden Equipment	
	Machine/Mechanical Parts	
	Metal Replacement	
	Power/Other Tools	
	Valves/Valve Parts	

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