

## Solvay Specialty Polymers Amodel® A-1933 HSL Polyphthalamide (PPA) (Unverified Data\*\*)

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

### Material Notes:

Amodel A-1933 HSL is a 33% glass reinforced grade of polyphthalamide (PPA) resin. This grade was developed specifically for improved performance in a 50/50 ethylene glycol and water environment. This material was tested using the aggressive automotive coolant system, ethylene glycol with organic acid stabilizer, at 130°C (266°F). It exceeds the performance required by the automotive industry for polymeric materials exposed to high-temperature antifreeze solutions. Potential applications include a variety of automotive components such as thermostat housings, heater core endcaps, heater hose connectors, and water inlets, outlets, and valves. - Black: A-1933 HSL BK

328Information provided by Solvay Specialty Polymers.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Solvay-Specialty-Polymers-Amodel-A-1933-HSL-Polyphthalamide-PPA-nbspUnverified-Data.php](http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Amodel-A-1933-HSL-Polyphthalamide-PPA-nbspUnverified-Data.php)

Physical Properties	Metric	English	Comments
Density	1.49 g/cc	0.0538 lb/in <sup>3</sup>	ISO 1183/A
Filler Content	33 %	33 %	Glass Fiber Reinforcement
Linear Mold Shrinkage, Flow	0.0020 cm/cm	0.0020 in/in	Type D2; ASTM D955
	0.020 cm/cm	0.020 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.010 cm/cm	0.010 in/in	Type D2; ASTM D955
	0.010 cm/cm	0.010 in/in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	195 MPa	28300 psi	ISO 527-2
Elongation at Break	1.8 %	1.8 %	ISO 527-2
Tensile Modulus	11.5 GPa	1670 ksi	ISO 527-2
Flexural Strength	280 MPa	40600 psi	ISO 178
Flexural Modulus	10.3 GPa	1490 ksi	ISO 178
Izod Impact, Notched (ISO)	8.10 kJ/m <sup>2</sup>	3.85 ft-lb/in <sup>2</sup>	ISO 180/1A
Charpy Impact, Notched	0.820 J/cm <sup>2</sup>	3.90 ft-lb/in <sup>2</sup>	ISO 179/1eA

Thermal Properties	Metric	English	Comments
Melting Point	323 °C	613 °F	ISO 11357-3
Deflection Temperature at 1.8 MPa			Unannealed; ISO 75-2/A

(264 psi) Thermal Properties	295 °C Metric	563 °F English	Comments
<b>Processing Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Rear Barrel Temperature	313 - 330 °C	595 - 626 °F	
Front Barrel Temperature	326 - 339 °C	619 - 642 °F	
Melt Temperature	331 - 352 °C	628 - 666 °F	
Mold Temperature	150 °C	302 °F	
Drying Temperature	120 °C	248 °F	
Dry Time	4.00 hour	4.00 hour	
Moisture Content	0.045 %	0.045 %	

Descriptive Properties	Value	Comments
Additive	Heat Stabilizer	
	Lubricant	
	Mold Release	
Appearance	Black	
Automotive Specifications	ASTM D6779 PA131G35	
	CHRYSLER MS-DB478 CPN4771 Color: BK-328 Black	
	ISO 1874-PA6T/6I, MH, 11-120, GF33 Color: BK-328, NT-07 Black & Natural	
Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
Features	Antifreeze Resistant	
	Glycol Resistant	
	Good Chemical Resistance	
	Good Creep Resistance	
	Good Dimensional Stability	

Descriptive Properties	Value	Stiffness	Comments
	High Heat Resistance		
	High Strength		
	Lubricated		
Forms	Pellets		
Generic	PPA		
Processing Method	Injection Molding		
Retention of Flexural Modulus (%)	76		130°C, 1000 hr, in Glycol
Retention of Flexural Strength (%)	71		130°C, 1000 hr, in Glycol
Retention of Tensile Modulus (%)	75		130°C, 1000 hr, in Glycol
Retention of Tensile Strength (%)	69		130°C, 1000 hr, in Glycol
RoHS Compliance	RoHS Compliant		
Uses	Automotive Applications		
	Automotive Under the Hood		
	Housings		
	Valves/Valve Parts		

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

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