

Solvay Specialty Polymers Amodel® AFA-6133 V0 Z Polyphthalamide (PPA), 33% Glass Fiber (Conditioned)

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

Material Notes:

Amodel® AFA-6133 V0 Z is a 33% glass-fiber reinforced, flame retardant grade of polyphthalamide (PPA) resin specifically formulated for connector applications requiring compatibility with both infrared and vapor phase soldering operations typically used by the electronics industry. Features: Flame Retardant; Good Chemical Resistance; Good Dimensional Stability; Good Electrical Properties; Good Stiffness; High Flow; High Strength; Hot Water Moldability. Uses: Automotive Applications; Automotive Electronics; Bobbins; Connectors; Electrical/Electronic Applications. 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. Automotive Specifications ASTM D6779 PA104G35; GM GMW15702 Color: BK Black. Information provided by Solvay Specialty Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Amodel-AFA-6133-V0-Z-Polyphthalamide-PPA-33-Glass-Fiber-Conditioned.php

Physical Properties	Metric	English	Comments
Density	1.68 g/cc	0.0607 lb/in ³	Dry; ISO 1183
Filler Content	33 %	33 %	Glass Fiber
Linear Mold Shrinkage, Flow	0.0030 cm/cm	0.0030 in/in	Dry
Linear Mold Shrinkage, Transverse	0.0060 cm/cm	0.0060 in/in	Dry; ASTM D955

Mechanical Properties	Metric	English	Comments
Tensile Strength	166 MPa	24100 psi	ASTM D638
Tensile Strength, Yield	63.4 MPa	9200 psi	4; ISO 527-2
	@Temperature 175 °C	@Temperature 347 °F	
	75.2 MPa	10900 psi	4; ISO 527-2
	@Temperature 150 °C	@Temperature 302 °F	
	114 MPa	16500 psi	4; ISO 527-2
	@Temperature 100 °C	@Temperature 212 °F	
	186 MPa	27000 psi	4; ISO 527-2
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Elongation at Break	1.7 %	1.7 %	ASTM D638

Mechanical Properties	Metric	English	Comments
	@Temperature 23.0 °C	@Temperature 73.4 °F	ISO 527-2
	2.4 %	2.4 %	ISO 527-2
	@Temperature 100 °C	@Temperature 212 °F	
	4.9 %	4.9 %	ISO 527-2
	@Temperature 175 °C	@Temperature 347 °F	
	5.1 %	5.1 %	ISO 527-2
	@Temperature 150 °C	@Temperature 302 °F	
Tensile Modulus	13.7 GPa	1990 ksi	ASTM D638
	5.10 GPa	740 ksi	4; ISO 527-2
	@Temperature 175 °C	@Temperature 347 °F	
	5.90 GPa	856 ksi	4; ISO 527-2
	@Temperature 150 °C	@Temperature 302 °F	
	9.20 GPa	1330 ksi	4; ISO 527-2
	@Temperature 100 °C	@Temperature 212 °F	
	14.5 GPa	2100 ksi	4; ISO 527-2
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Flexural Strength	229 MPa	33200 psi	ASTM D790
	88.0 MPa	12800 psi	4; ISO 178
	@Temperature 175 °C	@Temperature 347 °F	
	101 MPa	14600 psi	4; ISO 178
	@Temperature 150 °C	@Temperature 302 °F	
	161 MPa	23400 psi	4; ISO 178
	@Temperature 100 °C	@Temperature 212 °F	
	259 MPa	37600 psi	4; ISO 178
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Flexural Modulus	13.3 GPa	1930 ksi	ASTM D790
	4.60 GPa	667 ksi	ISO 178
	@Temperature 175 °C	@Temperature 347 °F	

Mechanical Properties	5.00 GPa Metric	725 ksi English	Comments
	@Temperature 150 Â°C	@Temperature 302 Â°F	ISO 178
	8.10 GPa	1170 ksi	ISO 178
	@Temperature 100 Â°C	@Temperature 212 Â°F	
	12.6 GPa	1830 ksi	ISO 178
	@Temperature 23.0 Â°C	@Temperature 73.4 Â°F	
Shear Strength	62.1 MPa	9010 psi	ASTM D732
Izod Impact, Notched	0.800 J/cm	1.50 ft-lb/in	ASTM D256
Izod Impact, Notched (ISO)	8.00 kJ/mÂ²	3.81 ft-lb/inÂ²	Type 1, Notch A; ISO 180
Izod Impact, Unnotched (ISO)	44.0 kJ/mÂ²	20.9 ft-lb/inÂ²	Type 1; ISO 180
Charpy Impact Unnotched	4.70 J/cmÂ²	22.4 ft-lb/inÂ²	Type 1, Edgewise; ISO 179
Charpy Impact, Notched	1.40 J/cmÂ²	6.66 ft-lb/inÂ²	Type 1, Edgewise; ISO 179

Thermal Properties	Metric	English	Comments
Melting Point	310 Â°C	590 Â°F	Peak; Dry; ASTM D3418
	310 Â°C	590 Â°F	ISO 11357-3
Deflection Temperature at 1.8 MPa (264 psi)	282 Â°C	540 Â°F	Unannealed; Flatwise; ISO 75-2/A

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	327 - 332 Â°C	621 - 630 Â°F	
Middle Barrel Temperature	316 - 324 Â°C	601 - 615 Â°F	
Front Barrel Temperature	316 - 324 Â°C	601 - 615 Â°F	
Melt Temperature	321 - 338 Â°C	610 - 640 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	0.030 - 0.060 %	0.030 - 0.060 %	Suggested Max

Descriptive Properties	Value	Comments
Additive	Flame Retardant	

Descriptive Properties	Value & Middle East	Comments
	Asia Pacific	
	Europe	
	Latin America	
	North America	
Color	Black	
Form	Pellets	
Part Marking Code	>PA6T/66-GF33<	ISO 11469
Processing Technique	Water-Heated Mold Injection Molding	
Resin ID	PA6T/66 GF33 FR(17)	ISO 1043
RoHS Compliance	RoHS Compliant	

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