

Solvay Specialty Polymers Amodel® A-1230 L Polyphthalamide (PPA) (discontinued **)

Category : Polymer , Thermoplastic , Polyphthalamide (PPA) , Polyphthalamide (PPA), Mineral Filled

Material Notes:

Amodel A-1230 L is a 30% mineral filled polyphthalamide (PPA) that offers low warpage and excellent dimensional stability. This resin also has a high deflection temperature, flexural modulus and tensile strength, and low moisture absorption. - Black: A-1230 L BK 324
Additional Information: Continuous Use Temperature, ASTM D3045, 5000 hrs: 311°F Continuous Use Temperature, ASTM D3045, 20000 hrs: 275°F Data is presented for dry polymer. Information provided by Solvay Specialty Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Amodel-A-1230-L-Polyphthalamide-PPA-nbspdiscontinued-.php

Physical Properties	Metric	English	Comments
Density	1.45 g/cc	0.0524 lb/in ³	ISO 1183/A
Filler Content	30 %	30 %	Mineral Filler
Water Absorption	0.12 % @Time 86400 sec	0.12 % @Time 24.0 hour	ASTM D570
Linear Mold Shrinkage, Flow	0.011 cm/cm	0.011 in/in	ASTM D955
Linear Mold Shrinkage, Transverse	0.011 cm/cm	0.011 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	126	126	R-Scale; ASTM D785
Tensile Strength, Yield	95.8 MPa	13900 psi	ISO 527-2
	104 MPa	15100 psi	ASTM D638
Elongation at Break	1.6 %	1.6 %	ASTM D638
	1.6 %	1.6 %	ISO 527-2
Tensile Modulus	6.89 GPa	999 ksi	ISO 527-2
Flexural Yield Strength	200 MPa	29000 psi	ASTM D790
Flexural Modulus	6.21 GPa	901 ksi	ASTM D790
Compressive Strength	152 MPa	22000 psi	ASTM D695
Poissons Ratio	0.31	0.31	ASTM E132
Shear Modulus	2.63 GPa	381 ksi	Calculated
Shear Strength	81.4 MPa	11800 psi	ASTM D732

Mechanical Properties	Metric	English	Comments
Charpy Impact, Notched	0.430 J/cm ²	0.106 ft-lb/in	ASTM D256
Charpy Impact Unnotched	2.50 J/cm ²	11.9 ft-lb/in ²	ISO 179/1eU
Charpy Impact, Notched	0.210 J/cm ²	0.999 ft-lb/in ²	ISO 179/1eA

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	41.0 µm/m-°C	22.8 µin/in-°F	TMA; ASTM E831
	@Temperature 0.000 - 100 °C	@Temperature 32.0 - 212 °F	
	88.0 µm/m-°C	48.9 µin/in-°F	TMA; ASTM E831
	@Temperature 160 - 249 °C	@Temperature 320 - 480 °F	
CTE, linear, Transverse to Flow	49.0 µm/m-°C	27.2 µin/in-°F	ASTM E831
	@Temperature 0.000 - 100 °C	@Temperature 32.0 - 212 °F	
	110 µm/m-°C	61.1 µin/in-°F	ASTM E831
	@Temperature 160 - 249 °C	@Temperature 320 - 480 °F	
Deflection Temperature at 0.46 MPa (66 psi)	279 °C	534 °F	Unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	158 °C	316 °F	Unannealed; ASTM D648
Flammability, UL94	HB	HB	UL 94
	@Thickness 3.18 mm	@Thickness 0.125 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+16 ohm-cm	1.00e+16 ohm-cm	ASTM D257
Dielectric Constant	3.9	3.9	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	4.2	4.2	ASTM D150
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	
Dielectric Strength	21.0 kV/mm	533 kV/in	ASTM D149
	@Thickness 3.18 mm	@Thickness 0.125 in	
Dissipation Factor	0.0060	0.0060	ASTM D150
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	

Electrical Properties	Metric	English	Comments
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	ASTM D150
Arc Resistance	125 sec	125 sec	ASTM D495
Comparative Tracking Index	550 V	550 V	UL 746

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	304 - 318 °C	579 - 604 °F	
Front Barrel Temperature	316 - 329 °C	601 - 624 °F	
Melt Temperature	321 - 343 °C	610 - 649 °F	
Mold Temperature	135 °C	275 °F	
Drying Temperature	120 °C	248 °F	
Dry Time	2.50 hour	2.50 hour	
Moisture Content	0.045 %	0.045 %	

Descriptive Properties	Value	Comments
Additive	Lubricant	
	Mold Release	
Appearance	Black	
Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
Features	Good Chemical Resistance	
	Low Moisture Absorption	
	Low Warpage	
	Lubricated	
Forms	Pellets	
Generic	PPA	

Descriptive Properties	Value	Comments
RoHS Compliance	RoHS Compliant	
Uses	Automotive Applications	
	Electrical/Electronic Applications	
	Industrial Applications	

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