Amodel® AFA-6145 V0 Z

Polyphthalamide

Solvay Specialty Polymers

Message:

Amodel® AFA-6145 V0 Z is a 45% 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.
Amodel® AFA-6145 V0 Z offers high flow and short molding cycles, thereby enhancing molding productivity and lowering costs.
Black: AFA-6145 V0 Z BK 324
Natural: AFA-6145 V0 Z NT

General Information	
UL YellowCard	E95746-253235
Filler / Reinforcement	Glass fiber reinforced material, 45% filler by weight
Additive	Flame retardancy
Features	Good dimensional stability Rigid, good High strength Good electrical performance High liquidity Good chemical resistance Hot water formability Flame retardancy
Uses	Industrial components Industrial application Connector Parts under the hood of a car Automotive Electronics Application in Automobile Field Mobile phone Shell
RoHS Compliance	RoHS compliance
Appearance	Black Natural color
Forms	Particle
Processing Method	Water temperature mold injection molding
Multi-Point Data	Viscosity vs. Shear Rate (ISO 11403-2)

Physical	Nominal Value	Unit	Test Method
Density	1.80	g/cm³	ISO 1183/A

Molding Shrinkage			ASTM D955
Flow	0.20	%	ASTM D955
Transverse flow	0.40	%	ASTM D955
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Break)	193	MPa	ASTM D638
Tensile Elongation (Break)	1.5	%	ASTM D638
Flexural Modulus	15500	MPa	ASTM D790
Flexural Strength	276	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	110	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed)	277	°C	ASTM D648
Peak Melting Temperature	310	°C	ASTM D3418
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+13	ohms	ASTM D257
Volume Resistivity	1.0E+15	ohms·cm	ASTM D257
Dielectric Strength (1.59 mm)	23	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	4.10		ASTM D150
Dissipation Factor (1 MHz)	0.011		ASTM D150
Comparative Tracking Index (CTI)	PLC 1		UL 746
High Amp Arc Ignition (HAI)			UL 746
0.749 mm	PLC 1		UL 746
1.50 mm	PLC 1		UL 746
3.00 mm	PLC 1		UL 746
Hot-wire Ignition (HWI)			UL 746
0.749 mm	PLC 0		UL 746
1.50 mm	PLC 0		UL 746
3.00 mm	PLC 0		UL 746
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating [1] (0.794 mm)	V-0		UL 94
Injection	**Nominal Value**	**Unit**	
Drying Temperature	120	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.045	%	
Rear Temperature	316 - 324	°C	
Front Temperature	327 - 332	°C	
Processing (Melt) Temp	321 - 338	°C	
Mold Temperature	65.6 - 93.3	°C	
Injection Rate	Fast		
Injection instructions			

Injection Rate: 3 to 4 in/secAdjust holding pressure to 1/2 injection pressure.Set hold time to maximize part weight.A general purpose screw is recommended, with minimum back pressure.Storage:
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 following the recommendations found in this datasheet and/or in the Amodel® processing guide.

NOTE	
1.	These flammability ratings do not represent the risk of these materials or any other materials in actual fire situations.

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Recommended distributors for this material

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