Amodel® AS-4133 L

Polyphthalamide

Solvay Specialty Polymers

Message:

Amodel AS- 4133 L 33% glass fiber reinforced, lubricated, structural grade polyphthalamide (PPA), fast processing cycle, warm water can be formed. Conventional uses include electrical and electronic components. -Black: AS-4133 L BK 324
natural color: AS-4133 L NT

General Information		
UL YellowCard	E95746-253241	E95746-253242
Filler / Reinforcement	Glass fiber reinforced material, 33% filler by weight	
Additive	Lubricant	
Features	Good dimensional stability Low hygroscopicity Rigid, good High strength Fast molding cycle Good creep resistance Good chemical resistance Hot water formability Lubrication	
Uses	Electrical/Electronic Applications Power/other tools Valve/valve components Industrial application Thick wall fittings (parts) Machine/mechanical parts Metal substitution Parts under the hood of a car Automotive Electronics Application in Automobile Field Mobile phone General Shell	
RoHS Compliance	RoHS compliance	
Appearance	Black Natural color	
Forms	Particle	

Processing Method		Water temperature mold injection molding		
Physical	Dry	Conditioned	Unit	Test Method
Specific Gravity	1.45	--	g/cm³	ASTM D792, ISO 1183/A
Molding Shrinkage				ASTM D955
Flow	0.50	--	%	ASTM D955
Transverse flow	1.0	--	%	ASTM D955
Water Absorption [1] (23°C, 24 hr)	0.29	--	%	ASTM D792
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	11700	11700	MPa	ASTM D638
Tensile Strength (Break)	200	172	MPa	ASTM D638
Tensile Elongation (Break)	2.5	2.2	%	ASTM D638
Flexural Modulus	11000	11000	MPa	ASTM D790
Flexural Strength (Yield)	290	241	MPa	ASTM D790
Compressive Strength	179	172	MPa	ASTM D695
Shear Strength	90.0	75.8	MPa	ASTM D732
Poisson's Ratio	0.41	--		ASTM E132
Impact	Dry	Conditioned	Unit	Test Method
Notched Izod Impact	80	69	J/m	ASTM D256
Unnotched Izod Impact	960	--	J/m	ASTM D256
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ASTM D648
0.45 MPa, annealed, 3.18mm	320	--	°C	ASTM D648
1.8 MPa, annealed, 3.18mm	300	--	°C	ASTM D648
Melting Temperature	327	--	°C	ASTM D570, DSC
Linear thermal expansion coefficient				ASTM E831
Flow: 0 to 90°C	2.2E-5	--	cm/cm/°C	ASTM E831
Flow: 149 to 249°C	1.4E-5	--	cm/cm/°C	ASTM E831
Lateral: 0 to 90°C	5.9E-5	--	cm/cm/°C	ASTM E831
Lateral: 149 to 249°C	1.2E-4	--	cm/cm/°C	ASTM E831
Electrical	Dry	Conditioned	Unit	Test Method
Comparative Tracking Index (CTI)	600	600	V	UL 746
High Voltage Arc Tracking Rate (HVTR)	14.0	18.0	mm/min	UL 746
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating [2] (3.18 mm)	HB	--		UL 94
Injection	Dry	Unit		
Drying Temperature	120 - 135		°C	
Drying Time	4.0		hr	

Suggested Max Moisture	0.045	%
Rear Temperature	318 - 324	°C
Front Temperature	327 - 332	°C
Processing (Melt) Temp	329 - 343	°C

Injection instructions

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.	General 0.29%, up to 1.07%
2.	These flammability ratings do not represent the risk of these materials or any other materials in actual fire situations.

Recommended distributors for this material

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