Amodel® AE-4133

Polyphthalamide

Solvay Specialty Polymers

Message:

Amodel AE-4133 is a 33% glass fiber reinforced and hot water formed polyphthalamide (PPA), which is specially used in modern automobile electronic environment. This grade resin is characterized by high thermal deformation temperature, high flexural modulus and high tensile strength, and has good creep resistance and low moisture absorption. -Black: AE-4133 BK902
natural color: AE-4133 NT

General Information	
Filler / Reinforcement	Glass fiber reinforced material, 33% filler by weight
Features	Good dimensional stability Low hygroscopicity Rigidity, high Rigid, good High strength High temperature strength Good creep resistance Good chemical resistance Heat resistance, high
Uses	Electrical/Electronic Applications Electrical components Connector Automotive Electronics
RoHS Compliance	Contact manufacturer
Appearance	Black Natural color
Forms	Particle
Processing Method	Injection molding

Physical	Dry	Conditioned	Unit	Test Method
Density	1.45	--	g/cm³	ISO 1183/A
Molding Shrinkage				ASTM D955
Flow	0.40	--	%	ASTM D955
Transverse flow	0.80	--	%	ASTM D955
Water Absorption (24 hr)	0.23	--	%	ASTM D570

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	12000	--	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	210	--	MPa	ISO 527-2

Tensile Strain (Break, 23°C)	2.5	--	%	ISO 527-2
Flexural Modulus (23°C)	10700	--	MPa	ISO 178
Flexural Stress (23°C)	295	--	MPa	ISO 178
Flexural Strain	3.1	--	%	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	9.0	--	kJ/m^2	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	79	--	kJ/m^2	ISO 179/1eU
Notched Izod Impact (23°C)	9.2	--	kJ/m^2	ISO 180/1A
Unnotched Izod Impact Strength (23°C)	68	--	kJ/m^2	ISO 180/1U
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature (1.8 MPa, Unannealed)	> 300	--	°C	ISO 75-2/A
Glass Transition Temperature	95.0	--	°C	DSC
Melting Temperature	327	--	°C	ISO 11357-3
Linear thermal expansion coefficient				ASTM E831
Flow: 0 to 100°C	2.0E-5	--	cm/cm/°C	ASTM E831
Flow: 100 to 200°C	1.5E-5	--	cm/cm/°C	ASTM E831
Lateral: 0 to 100°C	7.6E-5	--	cm/cm/°C	ASTM E831
Lateral: 100 to 200°C	1.2E-4	--	cm/cm/°C	ASTM E831
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Volume Resistivity	5.6E+15	5.0E+14	ohms·cm	ASTM D257
Dielectric Strength (3.20 mm)	19	19	kV/mm	ASTM D149
Dielectric Constant				ASTM D150
60 Hz	4.10	4.30		ASTM D150
1 MHz	3.75	3.40		ASTM D150
Dissipation Factor				ASTM D150
60 Hz	6.0E-3	0.020		ASTM D150
1 MHz	0.015	0.019		ASTM D150
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 [1] (3.20 mm)	HB	--		UL 94
Injection	**Dry**	**Unit**		
Drying Temperature	120		°C	
Drying Time	4.0		hr	
Suggested Max Moisture	0.030 - 0.060		%	

Rear Temperature	320 - 330	°C
Middle Temperature	320 - 330	°C
Front Temperature	327 - 335	°C
Processing (Melt) Temp	330 - 345	°C
Mold Temperature	65.0 - 95.0	°C

Injection instructions
射出速度:3-4英寸/秒 (7.5-10 cm/秒)保压压力: 射出压力的50%

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

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China