Ultramid® A3EG7 BK23189

BASF Corporation - Polyamide 66

Monday, November 4, 2019

General Information

Product Description

Ultramid A3EG7 BK23189 is a 35% glass fiber reinforced, pigmented black, injection molding PA66 grade for machinery components and housings of high stiffness and dimensional stability.

Applications

Typical applications include lamp socket housings, cooling fans, insulating profile for aluminium window frames, water containers for automotive cooling systems, as well as electrically insulating parts.

General			
Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber, 35% Filler by Weight		
Features	• High Dimensional Stability	• High Stiffness	• Oil Resistant
Uses	• Automotive Applications • Containers	• Electronic Insulation • Housings	• Machine/Mechanical Parts
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.42	g/cm³	ISO 1183
Water Absorption (Saturation, 73°F)	5.0	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.6	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (73°F)	1.60E+6	psi	ISO 527-2
Tensile Stress (Break, 73°F)	28700	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.6	%	ISO 527-2
Flexural Modulus (73°F)	1.51E+6	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179
-22°F	4.3	ft·lb/in²	
73°F	4.3	ft·lb/in²	
Charpy Unnotched Impact Strength			ISO 179
-22°F	26	ft·lb/in²	
73°F	30	ft·lb/in²	
Notched Izod Impact Strength			ISO 180
-40°F	3.8	ft·lb/in²	
73°F	4.3	ft·lb/in²	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (264 psi, Unannealed)	482	°F	ISO 75-2/A
Melting Temperature (DSC)	500	°F	ISO 3146

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Processing Information		
Injection	**Nominal Value**	**Unit**
Drying Temperature	176	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.15	%
Processing (Melt) Temp	536 to 581	°F
Mold Temperature	176 to 194	°F
Injection Pressure	508 to 1810	psi
Injection Rate	Fast	

Notes

[1] Typical properties: these are not to be construed as specifications.