



Ultramid® A3EG7 HP BK23189

BASF Corporation - Polyamide 66

Monday, November 4, 2019

General Information

Product Description

Ultramid A3EG7 HP BK23189 is a high flow, 35% glass fiber reinforced, pigmented black, laser markable 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 Flow • High Stiffness • Laser Markable
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	1.41	g/cm ³	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)	29000	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.6	%	ISO 527-2
Flexural Modulus (73°F)	1.46E+6	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F	3.9	ft·lb/in ²	
73°F	4.5	ft·lb/in ²	
Notched Izod Impact Strength (73°F)	4.4	ft·lb/in ²	ISO 180
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	486	°F	ISO 75-2/A
Melting Temperature (DSC)	500	°F	ISO 3146

Ultramid® A3EG7 HP BK23189

BASF Corporation - Polyamide 66

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.