



Ultramid® A3ZG3 HP BK20465

BASF Corporation - Polyamide 66

Monday, November 4, 2019

General Information

Product Description

Ultramid A3ZG3 HP BK20465 is a 15% glass fiber reinforced, heat stabilized, impact modified, injection molding PA66 grade.

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber, 15% Filler by Weight
Additive	• Heat Stabilizer • Impact Modifier
Features	• Heat Stabilized • Impact Modified • Oil Resistant
Agency Ratings	• EC 1907/2006 (REACH)
RoHS Compliance	• RoHS Compliant
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.19	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.2	--	%	
Flow	0.72	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	744000	515000	psi	ISO 527-2
Tensile Stress (Break, 73°F)	15200	10000	psi	ISO 527-2
Tensile Strain (Break, 73°F)	3.9	11	%	ISO 527-2
Flexural Modulus (73°F)	666000	457000	psi	ISO 178
Flexural Stress (73°F)	23900	16100	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-22°F	2.7	2.7	ft·lb/in ²	
73°F	6.7	8.6	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179
-22°F	34	38	ft·lb/in ²	
73°F	34	38	ft·lb/in ²	
Notched Izod Impact Strength				ISO 180
-40°F	2.8	2.8	ft·lb/in ²	
73°F	6.7	9.0	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/B
66 psi, Unannealed	496	--	°F	
Heat Deflection Temperature				ISO 75-2/A
264 psi, Unannealed	464	--	°F	
Melting Temperature (DSC)	500	--	°F	ISO 3146

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Processing Information

Injection	Dry	Unit
Drying Temperature	140	°F
Drying Time	1.0 to 2.0	hr
Suggested Max Moisture	0.040 to 0.20	%
Processing (Melt) Temp	550 to 581	°F
Mold Temperature	140 to 212	°F
Injection Pressure	508 to 1810	psi
Injection Rate	Fast	
Back Pressure	0.00 to 50.8	psi
Screw Speed	40 to 80	rpm
Screw Compression Ratio	3.0:1.0 to 4.0:1.0	

Notes

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