



Ultramid® A3WG10 BK00564

BASF Corporation - Polyamide 66

Monday, November 4, 2019

General Information

Product Description

Ultramid A3WG10 BK00564 is a 50% glass fiber reinforced, pigmented black, heat aging resistance injection molding PA66 grade.

Applications

Typical applications include industrial articles having very high rigidity.

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight
Features	• Heat Aging Resistant • High Rigidity • Oil Resistant
Uses	• Industrial Applications
Agency Ratings	• EC 1907/2006 (REACH)
RoHS Compliance	• RoHS Compliant
Automotive Specifications	• FORD WSK-M4D596-A • GM GMW3038P-PA66-GF50H • GM QK 003015 H
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.57	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	1.0	%	
Flow	0.40	%	
Water Absorption (Saturation, 73°F)	4.0	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.2	%	ISO 62

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	2.47E+6	psi	ISO 527-2
Tensile Stress (Break, 73°F)	34800	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.5	%	ISO 527-2
Flexural Modulus (73°F)	2.22E+6	psi	ISO 178
Flexural Stress (73°F)	52200	psi	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F	6.2	ft·lb/in ²	
73°F	7.1	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179
-22°F	40	ft·lb/in ²	
73°F	45	ft·lb/in ²	
Notched Izod Impact Strength			ISO 180
-40°F	6.7	ft·lb/in ²	
73°F	8.1	ft·lb/in ²	

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Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	504	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	493	°F	ISO 75-2/A
Melting Temperature (DSC)	500	°F	ISO 3146

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.