



Ultramid® B3WG6 BK00564 BGVW

BASF Corporation - Polyamide 6

Monday, November 4, 2019

General Information

Product Description

Ultramid B3WG6 BK00564 BGVW is a 30% glass fiber reinforced, pigmented black, heat stabilized injection molding PA6 grade.

Applications

Typical applications include automotive manifolds and pedals.

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Additive	• Heat Stabilizer
Features	• Heat Stabilized • Oil Resistant
Uses	• Automotive Applications
Agency Ratings	• EC 1907/2006 (REACH)
RoHS Compliance	• RoHS Compliant
Automotive Specifications	• FORD WSK-M4D664-A • FORD WSS-M4D993-B1 • GM GMW3029P-PA6-GF30H Color: Black • FORD WSS-M4D993-A • GM GMP.PA6.054 Color: Black • GM GMW3029P-PA6-GF30H Color: Natural
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density / Specific Gravity	1.36	--		ASTM D792
Density	1.36	--	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR)				ISO 1133
275°C/5.0 kg	40	--	cm ³ /10min	
Molding Shrinkage - Flow (0.125 in)	3.0E-3	--	in/in	
Water Absorption (Saturation)	6.6	--	%	ASTM D570
Water Absorption				ISO 62
Saturation, 73°F	6.6	--	%	
Water Absorption				ASTM D570
Equilibrium, 50% RH	2.1	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 50% RH	2.1	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.39E+6	812000	psi	ISO 527-2
Tensile Strength (Break, 73°F)	26100	16000	psi	ASTM D638
Tensile Stress (Break, 73°F)	26100	13100	psi	ISO 527-2
Tensile Strain (Break, 73°F)	3.0	6.0	%	ISO 527-2
Flexural Modulus (73°F)	1.20E+6	725000	psi	ISO 178
Flexural Stress (73°F)	36300	21800	psi	ISO 178

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Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-22°F	4.3	--	ft·lb/in ²	
73°F	5.7	9.5	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179
-22°F	31	--	ft·lb/in ²	
73°F	38	--	ft·lb/in ²	
Notched Izod Impact				ASTM D256
-40°F	2.0	--	ft·lb/in	
73°F	2.8	4.8	ft·lb/in	
Notched Izod Impact Strength				ISO 180
73°F	5.7	--	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ASTM D648
66 psi, Unannealed	428	--	°F	
Heat Deflection Temperature				ISO 75-2/B
66 psi, Unannealed	424	--	°F	
Deflection Temperature Under Load				ASTM D648
264 psi, Unannealed	410	--	°F	
Heat Deflection Temperature				ISO 75-2/A
264 psi, Unannealed	401	--	°F	
Peak Melting Temperature	428	--	°F	ASTM D3418
Melting Temperature (DSC)	428	--	°F	ISO 3146

Processing Information

Injection	Dry	Unit
Drying Temperature	181	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.15	%
Processing (Melt) Temp	518 to 563	°F
Mold Temperature	176 to 203	°F
Injection Pressure	508 to 1810	psi
Injection Rate	Fast	

Notes

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