

Ultramid® B3WG13 BK00102

Polyamide 6

BASF Corporation

Message:

Ultramid B3WG13 BK00102 is a 63% glass reinforced, injection molding, high modulus nylon designed to have high strength and stiffness for metal replacement applications. It also has excellent moldability and outstanding surface appearance.

Potential applications are mirror brackets, fuel lids, gas-assisted steering wheel inserts, ski bindings and bike rack clamps.

General Information				
Filler / Reinforcement	Glass Fiber,63% Filler by Weight			
Features	Good Moldability			
	High Stiffness			
	High Strength			
	Pleasing Surface Appearance			
Uses	Automotive Applications			
	Metal Replacement			
	Sporting Goods			
Agency Ratings	EC 1907/2006 (REACH)			
RoHS Compliance	RoHS Compliant			
Appearance	Black			
Forms	Pellets			
Processing Method	Injection Molding			
Physical	Dry	Conditioned	Unit	Test Method
Specific Gravity	1.74	--	g/cm ³	ASTM D792, ISO 1183
Molding Shrinkage - Flow (3.18 mm)	0.20	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	22000	13400	MPa	ISO 527-2
Tensile Strength				
Break, 23°C	207	--	MPa	ASTM D638
Break, 23°C	235	155	MPa	ISO 527-2
Tensile Elongation				
Break, 23°C	3.0	--	%	ASTM D638
Break, 23°C	2.0	--	%	ISO 527-2
Flexural Modulus				
23°C	17300	--	MPa	ASTM D790
23°C	19000	--	MPa	ISO 178
Flexural Strength				
23°C	378	--	MPa	ASTM D790

23°C	355	--	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-30°C	13	--	kJ/m ²	
23°C	15	--	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179
-30°C	90	--	kJ/m ²	
23°C	90	--	kJ/m ²	
Notched Izod Impact				
23°C	160	--	J/m	ASTM D256
23°C	15	--	kJ/m ²	ISO 180
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
1.8 MPa, Unannealed	213	--	°C	ASTM D648
1.8 MPa, Unannealed	214	--	°C	ISO 75-2/A
Peak Melting Temperature	220	--	°C	ASTM D3418, ISO 3146
RTI Elec				UL 746
1.50 mm	130	--	°C	
3.00 mm	130	--	°C	
RTI Imp				UL 746
1.50 mm	105	--	°C	
3.00 mm	110	--	°C	
RTI Str				UL 746
1.50 mm	130	--	°C	
3.00 mm	130	--	°C	
Flammability	Dry	Conditioned		Test Method
Flame Rating				UL 94
1.50 mm	HB	--		
3.00 mm	HB	--		
Injection	Dry	Unit		
Drying Temperature	80.0		°C	
Drying Time	2.0 to 4.0		hr	
Suggested Max Moisture	0.12		%	
Rear Temperature	275 to 300		°C	
Middle Temperature	285 to 310		°C	
Front Temperature	300 to 320		°C	
Nozzle Temperature	300 to 320		°C	
Processing (Melt) Temp	300 to 320		°C	
Mold Temperature	80.0 to 95.0		°C	
Injection Pressure	3.50 to 12.5		MPa	

Injection Rate

Fast

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