

Ultramid® B3S BK00464

BASF Corporation - Polyamide 6

Monday, November 4, 2019

General Information				
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Material Status	Commercial: Active			
Availability	North America			
Features	Oil Resistant			
Agency Ratings	• EC 1907/2006 (REACH)			
RoHS Compliance	RoHS Compliant			
Automotive Specifications	• FORD WSK-M4D672-A			
Appearance	Black			
Forms	• Pellets			
Processing Method	Injection Molding			

ASTM & ISO Properties 1							
Physical	Dry	Conditioned	Unit	Test Method			
Density	1.13		g/cm³	ISO 1183			
Melt Volume-Flow Rate (MVR)				ISO 1133			
275°C/5.0 kg	180		cm³/10min				
Water Absorption				ISO 62			
Saturation, 73°F	9.5		%				
Water Absorption				ISO 62			
Equilibrium, 73°F, 50% RH	3.0		%				
Mechanical	Dry	Conditioned	Unit	Test Method			
Tensile Modulus (73°F)	493000	174000	psi	ISO 527-2			
Tensile Stress (Yield, 73°F)	12800	6530	psi	ISO 527-2			
Tensile Strain (Yield, 73°F)	3.8	20	%	ISO 527-2			
Nominal Tensile Strain at Break				ISO 527-2			
73°F	10	> 50	%				
Flexural Modulus (73°F)	421000		psi	ISO 178			
Impact	Dry	Conditioned	Unit	Test Method			
Charpy Notched Impact Strength				ISO 179			
-22°F	1.4		ft·lb/in²				
73°F	1.9	24	ft·lb/in²				
Charpy Unnotched Impact Strength				ISO 179			
-22°F	95		ft·lb/in²				
73°F	120 ft·lb/in²	No Break					
Notched Izod Impact Strength				ISO 180			
73°F	1.4		ft·lb/in²				
Thermal	Dry	Conditioned	Unit	Test Method			
Heat Deflection Temperature				ISO 75-2/B			
66 psi, Unannealed	356		°F				
Heat Deflection Temperature				ISO 75-2/A			
264 psi, Unannealed	149		°F				
Melting Temperature (DSC)	428		°F	ISO 3146			



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Thermal	Dry	Conditioned	Unit	Test Method
RTI Elec				UL 746
0.06 in	266	-	°F	
0.12 in	266	-	°F	
0.24 in	266	-	°F	
RTI Imp				UL 746
0.06 in	167	-	°F	
0.12 in	167	-	°F	
0.24 in	167	-	°F	
RTI Str				UL 746
0.06 in	230	-	°F	
0.12 in	239	-	°F	
0.24 in	239		°F	
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.06 in	V-2	-		
0.12 in	V-2	-		
0.24 in	V-2			
	Processing Info	ormation		
Injection		Dry Unit		
Drying Temperature		176 °F		
Drying Time		2.0 to 4.0 hr		
Suggested Max Moisture		0.15 %		
Processing (Melt) Temp		464 to 545 °F		
Mold Temperature		149 to 176 °F		
Injection Pressure		508 to 1810 psi		

Notes

Injection Rate

Fast

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