Ultramid® A 3W BK00464

Polyamide 66

BASF Corporation

Product Description
Ultramid A3W BK00464 is an easy flowing, pigmented black, heat aging resistant injection molding PA66 grade for fast processing.

General			
Material Status	• Commercial: Active		
Availability	• Europe	• North America	
Features	• Fast Molding Cycle • Good Flow	• Good Thermal Aging Resistance • Oil Resistant	
Uses	• Automotive Applications • Automotive Electronics • Bearings	• Connectors • Electrical Housing • Electrical Parts	• Engineering Parts • Gears • Industrial Applications
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
Multi-Point Data	• Creep Modulus vs. Time (ISO 11403-1) • Isochronous Stress vs. Strain (ISO 11403-1)	• Isothermal Stress vs. Strain (ISO 11403-1) • Secant Modulus vs. Strain (ISO 11403-1)	• Viscosity vs. Shear Rate (ISO 11403-2)

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.13	g/cm³	ASTM D792
--	1130	kg/m³	ISO 1183[2]
Water Absorption			
24 hr	2.8	%	ASTM D570
24 hr, 23°C	2.8	%	ISO 62
Saturation	8.5	%	ASTM D570 ISO 62[2]
Equilibrium, 50% RH	2.8	%	ASTM D570
Equilibrium	2.8	%	ISO 62[2]

Mechanical	Nominal Value	Unit	Test Method
Tensile modulus	3290	MPa	ISO 527-2[2]
Tensile Strength			
Yield, 23°C	85.0	MPa	ASTM D638
Yield	90.0	MPa	ISO 527-2[2]
Tensile Elongation			
Yield, 23°C	4.5	%	ASTM D638
Yield	4.5	%	ISO 527-2[2]
Flexural Modulus (23°C)	3130	MPa	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy notched impact strength (23°C)	5.00	kJ/m²	ISO 179/1eA[2]
Notched Izod Impact			
-40°C	48.0	J/m	ASTM D256
23°C	53.0	J/m	ASTM D256
-40°C	3.50	kJ/m²	ISO 180
23°C	5.00	kJ/m²	ISO 180

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa)	69.0	°C	ISO 75-2[2]
Melting Temperature	260	°C	ASTM D3418 ISO 3146

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Injection	Nominal Value	Unit
Drying Temperature	80.0	°C
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.20	%
Processing (Melt) Temp	280 to 300	°C
Mold Temperature	40.0 to 80.0	°C
Injection Pressure	3.50 to 12.5	MPa
Injection Rate	Fast	

Notes

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

[2] Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.