

## Technical Data

### Product Description

Ultramid B3EG3 is a 15% glass fiber reinforced injection molding PA6 grade for housings with enhanced impact resistance.

### Applications

Typical applications include automotive mirror housings and wheels of mountain bikes.

### General

Material Status	• Commercial: Active
Literature <sup>1</sup>	• <a href="#">Technical Datasheet - ASTM (English)</a> • <a href="#">Technical Datasheet - ISO (English)</a>
UL Yellow Card <sup>2</sup>	• <a href="#">E36632-531646</a> • <a href="#">E41871-233685</a>
Search for UL Yellow Card	• <a href="#">BASF Corporation</a> • <a href="#">Ultramid®</a>
Availability	• Asia Pacific • Europe • North America
Filler / Reinforcement	• Glass Fiber, 15% Filler by Weight
Features	• Good Impact Resistance • Oil Resistant
Uses	• Automotive Applications • Housings • Wheels
Agency Ratings	• EC 1907/2006 (REACH)
RoHS Compliance	• RoHS Compliant
Forms	• Pellets
Processing Method	• Injection Molding
Multi-Point Data	• Creep Modulus vs. Time (ISO 11403-1) • Isothermal Stress vs. Strain (ISO 11403-1) • Viscosity vs. Shear Rate (ISO 11403-2) • Isochronous Stress vs. Strain (ISO 11403-1) • Secant Modulus vs. Strain (ISO 11403-1)

Physical	Dry	Conditioned	Unit	Test Method
Density / Specific Gravity	1.23	--	g/cm <sup>3</sup>	ASTM D792 ISO 1183
Melt Volume-Flow Rate (MVR) (275°C/5.0 kg)	75	--	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage - Flow (3.18 mm)	0.50	--	%	
Water Absorption				
Saturation	7.7	--	%	ASTM D570
Saturation, 23°C	7.7	--	%	ISO 62
Equilibrium, 50% RH	2.3	--	%	ASTM D570
Equilibrium, 23°C, 50% RH	2.3	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	5800	3500	MPa	ISO 527-1
Tensile Strength				
Break, 23°C	103	--	MPa	ASTM D638
Break, 23°C	130	70.0	MPa	ISO 527-2
Tensile Elongation				
Break, 23°C	3.5	--	%	ASTM D638
Break, 23°C	3.5	15	%	ISO 527-2
Flexural Modulus				
23°C	5170	--	MPa	ASTM D790
23°C	5200	2500	MPa	ISO 178



**Ultramid® B3EG3**

Polyamide 6

**BASF Corporation****PROSPECTOR®**

www.ulprospector.com

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-30°C	7.0	--	kJ/m <sup>2</sup>	
23°C	8.0	20	kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength				ISO 179
-30°C	45	--	kJ/m <sup>2</sup>	
23°C	50	110	kJ/m <sup>2</sup>	
Notched Izod Impact				
-40°C	48	--	J/m	ASTM D256
23°C	59	--	J/m	ASTM D256
23°C	6.0	--	kJ/m <sup>2</sup>	ISO 180
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
0.45 MPa, Unannealed	215	--	°C	ASTM D648 ISO 75-2/B
1.8 MPa, Unannealed	190	--	°C	ASTM D648 ISO 75-2/A
Peak Melting Temperature	220	--	°C	ASTM D3418 ISO 3146
CLTE				
Flow	2.0E-5	--	cm/cm/°C	ASTM E831
Flow	3.3E-5	--	cm/cm/°C	
Transverse	7.5E-5	--	cm/cm/°C	
RTI Elec				UL 746B
0.8 mm	120	--	°C	
1.5 mm	120	--	°C	
3.0 mm	120	--	°C	
RTI Imp				UL 746B
1.5 mm	95.0	--	°C	
3.0 mm	95.0	--	°C	
RTI Str				UL 746B
1.5 mm	130	--	°C	
3.0 mm	130	--	°C	
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity				
1.50 mm	1.0E+15	1.0E+12	ohms-cm	ASTM D257
--	1.0E+15	1.0E+12	ohms-cm	IEC 60093
Dielectric Constant (1 MHz)	3.80	7.00		IEC 60250
Dissipation Factor				IEC 60250
100 Hz	0.025	0.24		
1 MHz	0.025	0.24		
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
1.5 mm	HB	--		
3.0 mm	HB	--		
Injection	Dry Unit			
Drying Temperature	80 °C			
Drying Time	2.0 to 4.0 hr			
Suggested Max Moisture	0.15 %			
Processing (Melt) Temp	250 to 290 °C			
Mold Temperature	80 to 95 °C			
Injection Pressure	3.50 to 12.5 MPa			
Injection Rate	Fast			



### Notes

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

<sup>3</sup> Typical properties: these are not to be construed as specifications.



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**Where to Buy**

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**Supplier**

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**BASF Corporation**

Wyandotte, Wyandotte USA

**Telephone:** 800-545-8359**Web:** <https://www.basf.com/us/en.html>

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**Distributor**

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