Ultramid® B3EG3

Polyamide 6

BASF Corporation

Message:

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 moutain bikes.

General Information		
UL YellowCard	E36632-531646	E41871-233685
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) 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	Dry	Conditioned	Unit	Test Method
Specific Gravity	1.23	--	g/cm³	ASTM D792, ISO 1183
Melt Volume-Flow Rate (MVR) (275°C/5.0 kg)	75.0	--	cm³/10min	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 527-2

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
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179
-30°C	7.0	--	kJ/m^2	
23°C	8.0	20	kJ/m^2	
Charpy Unnotched Impact Strength				ISO 179
-30°C	45	--	kJ/m^2	
23°C	50	110	kJ/m^2	
Notched Izod Impact				
-40°C	48	--	J/m	ASTM D256
23°C	59	--	J/m	ASTM D256
23°C	6.0	--	kJ/m^2	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 746
0.830 mm	120	--	°C	
1.50 mm	120	--	°C	
3.00 mm	120	--	°C	
RTI Imp				UL 746
1.50 mm	95.0	--	°C	
3.00 mm	95.0	--	°C	
RTI Str				UL 746
1.50 mm	130	--	°C	
3.00 mm	130	--	°C	
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**

Volume Resistivity				
1.50 mm	1.0E+13	1.0E+10	ohms·cm	ASTM D257
--	1.0E+13	1.0E+10	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
1.50 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	0.15		%	
Processing (Melt) Temp	250 to 290		°C	
Mold Temperature	80.0 to 95.0		°C	
Injection Pressure	3.50 to 12.5		MPa	
Injection Rate	Fast			

Recommended distributors for this material

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