



Ultramid® B3EG7

BASF Corporation - Polyamide 6

Monday, November 4, 2019

General Information

Product Description

Ultramid B3EG7 is a 35% glass fiber reinforced injection molding PA6 grade.

Applications

Typical applications include industrial articles and electrical insulating parts.

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • North America
Filler / Reinforcement	• Glass Fiber, 35% Filler by Weight
Features	• Oil Resistant
Uses	• Electronic Insulation • Industrial Applications
Agency Ratings	• EC 1907/2006 (REACH)
RoHS Compliance	• RoHS Compliant
Automotive Specifications	• GM GMW16582P-PA6-GF35 Color: Black • GM GMW16582P-PA6-GF35 Color: Natural
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.41	--	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) 275°C/5.0 kg	45	--	cm ³ /10min	ISO 1133
Water Absorption Saturation, 73°F	6.2	--	%	ISO 62
Water Absorption Equilibrium, 73°F, 50% RH	2.0	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.60E+6	1.04E+6	psi	ISO 527-2
Tensile Stress (Break, 73°F)	29000	18900	psi	ISO 527-2
Tensile Strain (Break, 73°F)	3.5	7.0	%	ISO 527-2
Flexural Modulus (73°F)	1.45E+6	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength -22°F	6.2	--	ft·lb/in ²	ISO 179
73°F	8.1	16	ft·lb/in ²	
Charpy Unnotched Impact Strength -22°F	43	--	ft·lb/in ²	ISO 179
73°F	50	52	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature 66 psi, Unannealed	428	--	°F	ISO 75-2/B

Ultramid® B3EG7

BASF Corporation - Polyamide 6

Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature 264 psi, Unannealed	419	--	°F	ISO 75-2/A
Melting Temperature (DSC)	428	--	°F	ISO 3146
CLTE - Flow	9.4E-6	--	in/in/°F	
CLTE - Transverse	3.6E-5	--	in/in/°F	
RTI Elec				UL 746
0.030 in	248	--	°F	
0.06 in	248	--	°F	
0.12 in	248	--	°F	
RTI Imp				UL 746
0.06 in	203	--	°F	
0.12 in	203	--	°F	
RTI Str				UL 746
0.06 in	266	--	°F	
0.12 in	266	--	°F	
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	1.0E+17	1.0E+12	ohms·cm	IEC 60093
Dielectric Constant (1 MHz)	3.90	6.20		IEC 60250
Dissipation Factor				IEC 60250
100 Hz	0.021	0.19		
1 MHz	0.021	0.19		
Comparative Tracking Index	575	575	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.06 in	HB	--		
0.12 in	HB	--		

Processing Information

Injection	Dry	Unit
Drying Temperature	181	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.050 to 0.12	%
Processing (Melt) Temp	518 to 563	°F
Mold Temperature	176 to 203	°F
Injection Pressure	508 to 1810	psi
Injection Rate	Fast	

Notes

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