

Ultramid® B3GK24

Polyamide 6

BASF Corporation

Message:

Ultramid B3GK24 is 30% combined glass-fiber and glass bead injection molding PA6 grade for industrial articles having very high dimensional stability.

Applications

Typical applications include automobile ashtrays and housings for electronics.

General Information				
UL YellowCard		E36632-100156104	E41871-233692	
Filler / Reinforcement		Glass Bead\Glass Fiber,30% Filler by Weight		
Features		Good Dimensional Stability		
		Oil Resistant		
Uses		Automotive Applications		
		Electrical Housing		
		Industrial Parts		
Agency Ratings		EC 1907/2006 (REACH)		
RoHS Compliance		RoHS Compliant		
Forms		Pellets		
Processing Method		Injection Molding		
Physical	Dry	Conditioned	Unit	Test Method
Specific Gravity	1.34	--	g/cm³	ASTM D792, ISO 1183
Melt Volume-Flow Rate (MVR) (275°C/5.0 kg)	70.0	--	cm³/10min	ISO 1133
Molding Shrinkage - Flow (3.18 mm)	0.40	--	%	
Water Absorption				
Saturation	6.6	--	%	ASTM D570
Saturation, 23°C	6.6	--	%	ISO 62
Equilibrium, 50% RH	2.0	--	%	ASTM D570
Equilibrium, 23°C, 50% RH	2.0	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	6000	3000	MPa	ISO 527-2
Tensile Strength				
Break, 23°C	110	--	MPa	ASTM D638
Break, 23°C	105	60.0	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	3.5	15	%	ISO 527-2
Flexural Modulus (23°C)	4830	--	MPa	ASTM D790
Impact	Dry	Conditioned	Unit	Test Method

Charpy Notched Impact Strength				ISO 179
-30°C	5.0	--	kJ/m ²	
23°C	5.0	11	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179
-30°C	39	--	kJ/m ²	
23°C	40	90	kJ/m ²	
Notched Izod Impact				ASTM D256
-40°C	32	--	J/m	
23°C	37	--	J/m	
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	200	--	°C	ASTM D648, ISO 75-2/A
Peak Melting Temperature	220	--	°C	ASTM D3418, ISO 3146
CLTE - Flow				
--	1.0E-5	--	cm/cm/°C	ASTM E831
--	3.8E-5	--	cm/cm/°C	
RTI Elec				UL 746
0.750 mm	65.0	--	°C	
1.50 mm	65.0	--	°C	
3.00 mm	65.0	--	°C	
RTI Imp				UL 746
0.750 mm	65.0	--	°C	
1.50 mm	65.0	--	°C	
3.00 mm	65.0	--	°C	
RTI Str				UL 746
0.750 mm	65.0	--	°C	
1.50 mm	65.0	--	°C	
3.00 mm	65.0	--	°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)	3.90	4.60		IEC 60250
Dissipation Factor (1 MHz)	0.020	0.070		IEC 60250
Comparative Tracking Index	425	425	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.750 mm	HB	--		

1.50 mm	HB	--
3.00 mm	HB	--
Injection	Dry	Unit
Drying Temperature	83.0	°C
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.050 to 0.12	%
Processing (Melt) Temp	270 to 295	°C
Mold Temperature	80.0 to 95.0	°C
Injection Pressure	3.50 to 12.5	MPa
Injection Rate	Fast	

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