Ultramid® B3G8

Polyamide 6

BASF Corporation

Message:

A glass fibre reinforced injection moulding grade suitable for auto pedals and modules.

General Information	
UL YellowCard	E36632-586925
Filler / Reinforcement	Glass fiber reinforced material, 40% filler by weight
Features	Oil resistance
Uses	Application in Automobile Field
Agency Ratings	EC 1907/2006 (REACH)
RoHS Compliance	RoHS compliance
Forms	Particle
Processing Method	Injection molding
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1)
	Secant Modulus vs. Strain (ISO 11403-1)

Physical	Dry	Conditioned	Unit	Test Method
Density	1.43	--	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (275°C/5.0 kg)	25.0	--	cm³/10min	ISO 1133
Molding Shrinkage				ISO 294-4
Vertical flow direction	0.80	--	%	ISO 294-4
Flow direction	0.24	--	%	ISO 294-4
Water Absorption				ISO 62
Saturated, 23°C	5.4 - 6.0	--	%	ISO 62
Equilibrium, 23°C, 50% RH	1.6 - 2.0	--	%	ISO 62
Viscosity Number (96% H2SO4)	140	--	cm³/g	ISO 307
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	13000	8200	MPa	ISO 527-2
Tensile Stress (Break)	205	135	MPa	ISO 527-2
Tensile Strain (Break)	2.8	4.6	%	ISO 527-2
Tensile Creep Modulus [1] (1000 hr)	3300	--	MPa	ISO 899-1
Flexural Modulus	10500	7400	MPa	ISO 178
Flexural Stress	290	205	MPa	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA

-30°C	11	11	kJ/m²	ISO 179/1eA
23°C	14	--	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	85	--	kJ/m²	ISO 179/1eU
23°C	90	110	kJ/m²	ISO 179/1eU
Notched Izod Impact				ISO 180/A
-30°C	12	--	kJ/m²	ISO 180/A
23°C	16	12	kJ/m²	ISO 180/A
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature				
0.45 MPa, not annealed	220	--	°C	ISO 75-2/B
1.8 MPa, not annealed	215	--	°C	ISO 75-2/A
Melting Temperature	220	--	°C	ISO 11357-3
Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 80°C	1.0E-5 - 1.5E-5	--	cm/cm/°C	ISO 11359-2
Lateral: 23 to 80°C	5.5E-5 - 7.0E-5	--	cm/cm/°C	ISO 11359-2
Specific Heat	1400	--	J/kg/°C	
Thermal Conductivity	0.36	--	W/m/K	DIN 52612
Maximum operating temperature-short cycle operation	200	--	°C	
Automotive Materials (> 1.00 mm)	Pass	--		FMVSS 302
Screw Speed			mm/sec	
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	1.0E+10	--	ohms	IEC 60093
Volume Resistivity	1.0E+15	1.0E+12	ohms·cm	IEC 60093
Relative Permittivity (1 MHz)	4.00	6.00		IEC 60250
Dissipation Factor (1 MHz)	0.014	0.13		IEC 60250
Comparative Tracking Index (Solution A)	550	--	V	IEC 60112
Injection	**Dry**	**Unit**		
Drying Temperature	80.0		°C	
Drying Time	4.0		hr	
Suggested Max Moisture	0.15		%	
Hopper Temperature	80.0		°C	
Rear Temperature	260		°C	
Middle Temperature	270		°C	
Front Temperature	280		°C	
Nozzle Temperature	280		°C	
Processing (Melt) Temp	270 - 290		°C	

Mold Temperature	80.0 - 90.0	°C

Injection instructions
Residence Time: <10 min.

NOTE	
1.	strain <= 0.5%, 23°C

Recommended distributors for this material

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