

Ultramid® TG7S BK-102

Polyamide 6

BASF Corporation

Message:

Ultramid TG7S Bk-102 is a 34% glass reinforced, pigmented black, heat stabilized, impact modified PA6 injection molding grade. It was developed to meet the demanding requirements of the first North American seat cushion pan/frame to be made of an engineering plastic as opposed to metal. TG7S BK-102 exhibits improved strength, stiffness and notched impact properties over Ultramid 8333G HI.

Applications

Include cushion seat pan/frame and other automotive seating applications, automotive fan, power tools and trimmer components.

General Information			
UL YellowCard	E36632-231205		
Filler / Reinforcement	Glass Fiber,34% Filler by Weight		
Additive	Heat Stabilizer		
	Impact Modifier		
Features	Good Impact Resistance		
	Good Stiffness		
	Good Strength		
	Heat Stabilized		
	Impact Modified		
Uses	Automotive Applications		
	Automotive Interior Parts		
	Lawn and Garden Equipment		
	Seats		
Agency Ratings	EC 1907/2006 (REACH)		
RoHS Compliance	RoHS Compliant		
Appearance	Black		
Forms	Pellets		
Processing Method	Injection Molding		
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1)		
	Secant Modulus vs. Strain (ISO 11403-1)		
	Viscosity vs. Shear Rate (ISO 11403-2)		
Physical	Nominal Value	Unit	Test Method
Density	1.38	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (235°C/5.0 kg)	6.00	cm³/10min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	9500	MPa	ISO 527-2

Tensile Stress (Break, 23°C)	165	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.5	%	ISO 527-2
Flexural Modulus (23°C)	8400	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength			ISO 180
-40°C	17	kJ/m ²	
23°C	22	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	220	°C	ISO 75-2/B
1.8 MPa, Unannealed	208	°C	ISO 75-2/A
Melting Temperature (DSC)	220	°C	ISO 3146
Injection	Nominal Value	Unit	
Drying Temperature	80.0	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.080	%	
Rear Temperature	245 to 275	°C	
Middle Temperature	260 to 285	°C	
Front Temperature	270 to 295	°C	
Nozzle Temperature	270 to 295	°C	
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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