

Ultramid® TG3S

Polyamide 6

BASF Corporation

Message:

Ultramid TG3S is a 15% glass reinforced, heat stabilized, impact modified PA6 injection molding compound developed for applications requiring improved toughness in combination with a balance of strength, stiffness, excellent moldability and surface aesthetics.

Applications

It is generally recommended for application such as window hardware, wheel chairs wheels, bicycle wheels, power tool housings, hose clamps, clips and fasteners.

General Information			
UL YellowCard	E36632-231204		
Filler / Reinforcement	Glass Fiber,15% Filler by Weight		
Additive	Heat Stabilizer		
	Impact Modifier		
Features	Good Moldability		
	Good Stiffness		
	Good Strength		
	Good Toughness		
	Heat Stabilized		
	Impact Modified		
	Pleasing Surface Appearance		
Uses	Fasteners		
	Housings		
	Power/Other Tools		
	Wheels		
Agency Ratings	EC 1907/2006 (REACH)		
RoHS Compliance	RoHS Compliant		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.21	g/cm ³	ISO 1183
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Break, 23°C)	90.0	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	3.5	%	ISO 527-2
Flexural Modulus (23°C)	4390	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	13	kJ/m ²	ISO 179

Notched Izod Impact Strength			ISO 180
-40°C	5.4	kJ/m ²	
23°C	17	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	180	°C	ISO 75-2/A
Melting Temperature (DSC)	220	°C	ISO 3146
RTI Elec			UL 746
1.00 mm	65.0	°C	
1.50 mm	65.0	°C	
3.00 mm	65.0	°C	
RTI Imp			UL 746
1.00 mm	65.0	°C	
1.50 mm	65.0	°C	
3.00 mm	65.0	°C	
RTI Str			UL 746
1.00 mm	65.0	°C	
1.50 mm	65.0	°C	
3.00 mm	65.0	°C	
Flammability	Nominal Value		Test Method
Flame Rating			UL 94
1.00 mm	HB		
1.50 mm	HB		
3.00 mm	HB		
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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Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

