Product Information

Aug 2017

Ultramid[®] B3WG7 Polyamide 6



Product Description

Ultramid B3WG7 is a 35% glass fiber reinforced injection molding PA6 grade for highly rigid, dimensionally stable components which are resistant to high temperature aging and have improved retention of properties in a hot water environment.

Applications

Typical applications include automotive clutch and accelerator pedals.

Moisture, % 62 (50% RH) 2 (Saturation) 6.2 RHEOLOGICAL ISO Test Method Dry Conditioned Welt Volume Rate (275 C/5 Kg), cc/10min. 1133 45 - MECHANICAL ISO Test Method Dry Conditioned Fensile Modulus, MPa 527 23C 11,000 7,200 Fensile Stress at break, MPa 527 23C 195 130 Fensile strain at break, % 527 - 40C 3.8 - 23C 195 130 - 23C 3.5 7.0 Fensule strain at break, % 527 - - - 23C 3.5 7.0 23C 3.5 7.0 -	PHYSICAL	ISO Test Method	Proper	ty Value
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· •	Comparative Tracking Index	IEC 60112	450	450

General Information: 800-BC-RESIN Technical Assistance: 800-527-TECH (734-324-5150) Web address: http://www.plasticsportal.com/usa

Ultramid® B3WG7



Dielectric Constant (1 MHz)	IEC 60250	3.9	6.2	
Dissipation Factor (100 Hz), E-4	IEC 60250	210	1,900	
Dissipation Factor (1 MHz), E-4	IEC 60250	210	1,900	
UL RATINGS	UL Test Method	Property Value		
Relative Temperature Index, 0.75mm	UL746B			
Electrical, C			130	
Flammability Rating, 1.5mm	UL94		HB	
Relative Temperature Index, 1.5mm	UL746B			
Mechanical w/o Impact, C		130		
Mechanical w/ Impact, C			90	
Electrical, C			130	
Flammability Rating, 3.0mm	UL94		HB	
Relative Temperature Index, 3.0mm	UL746B			
Mechanical w/o Impact, C			130	
Mechanical w/ Impact, C			100	
Electrical, C			130	

Processing Guidelines

Material Handling

Max. Water content: 0.15%

Material is supplied in sealed containers and drying prior to molding in a dehumidifying or desiccant dryer is recommended. Drying parameters are dependent upon the actual percentage of moisture in the pellets and typical pre-drying conditions are 2-4 hours at 180F (83C). Recommended moisture levels for achieving optimum surface qualities and mechanical properties is 0.05% - 0.12%. Further information concerning safe handling procedures can be obtained from the Safety Data Sheet (MSDS), or by contacting your BASF representative.

Typical Profile

Melt Temperature 270-295C (518-563F) Mold Temperature 80-95C (176-203F) Injection and Packing Pressure 35-125 bar (500-1500 psi)

Mold Temperatures

This product can be processed over a wide range of mold temperatures; however, for applications where aesthetics are critical, a mold surface temperature of 80-95C (176-203F) is recommended.

Pressures

Injection pressure controls the filling of the part and should be applied for 90% of ram travel. Packing pressure affects the final part and can be used effectively in controlling sink marks and shrinkage. It should be applied and maintained until the gate area is completely frozen off.

Back pressure can be utilized to provide uniform melt consistency and reduce trapped air and gas. Minimal back pressure should be utilized to prevent glass breakage.

Fill Rate

Fast fill rates are recommended to ensure uniform melt delivery to the cavity and prevent premature freezing. Surface appearance is directly affected by injection rate.

Note



Note

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