Product Information

Aug 2017

Ultramid® B3WG3
Polyamide 6

BASF
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Product Description

Ultramid B3WG3 is a 15% glass fiber reinforced, heat stabilized injection molding PA6 grade.

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm³	1183	1.23	
MECHANICAL	**ISO Test Method**	**Dry**	**Conditioned**
Tensile Modulus, MPa	527		
23C		5,800	-
Tensile stress at break, MPa	527		
23C		130	-
Tensile strain at break, %	527		
23C		3.5	-
Flexural Modulus, MPa	178		
23C		5,400	-
IMPACT	**ISO Test Method**	**Dry**	**Conditioned**
Izod Notched Impact, kJ/m²	180		
23C		5.6	-
Charpy Notched, kJ/m²	179		
-30C		6	-
23C		7	-
Charpy Unnotched, kJ/m²	179		
23C		40	-
THERMAL	**ISO Test Method**	**Dry**	**Conditioned**
Melting Point, C	3146	220	-
HDT A, C	75	190	-
UL RATINGS	**UL Test Method**	**Property Value**	
Flammability Rating, 0.8mm	UL94	HB	
Relative Temperature Index, 0.8mm	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		85	
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		85	
Electrical, C		130	

Processing Guidelines

Material Handling

BASF Corporation
Engineering Plastics
1609 Biddle Avenue
Wyandotte, MI 48192

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

Max. Water content: 0.15%
Product is supplied in sealed containers and drying prior to molding is not required. If drying becomes necessary, a dehumidifying or desiccant dryer operating at 80C (176F) is recommended. Drying time is dependent on moisture level, however 2-4 hours is generally sufficient. Further information concerning safe handling procedures can be obtained from the Safety Data Sheet. Alternatively, please contact your BASF representative.

Typical Profile
Melt Temperature 250-290C (482-554F)
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. recommended to minimize glass fiber 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

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