Product Information

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Ultramid® B3G8
Polyamide 6

BASF The Chemical Company

Product Description

Ultramid B3G8 is heat stabilized, pigmented black, 40% glass reinforced PA6 injection molding compound offering the highest level of strength, stiffness, and dimensional stability.

Applications

Ultramid B3G8 is generally recommended for applications such as consumer power tool housings, cattle ear taggers, luggage frames, fans and pressure regulator housings.

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm	1183	1.44	
MECHANICAL	**ISO Test Method**	**Dry**	**Conditioned**
Tensile Modulus, MPa	527		
23C		12,600	-
Tensile stress at break, MPa	527		
23C		200	-
Tensile strain at break, %	527		
23C		2.5	-
Flexural Modulus, MPa	178		
23C		11,200	-
IMPACT	**ISO Test Method**	**Dry**	**Conditioned**
Izod Notched Impact, kJ/m^2	180		
23C		12	-
-40C		10	-
Charpy Notched, kJ/m^2	179		
23C		12	-
-30C		9	-
Charpy Unnotched, kJ/m^2	179		
23C		80	-
-30C		70	-
THERMAL	**ISO Test Method**	**Dry**	**Conditioned**
Melting Point, C	3146	220	-
HDT A, C	75	210	-
Coef. of Linear Thermal Expansion, Parallel, mm/mm C		0.17 X10-4	-
Coef. of Linear Thermal Expansion, Normal, mm/mm C		0.78 X10-4	-

Processing Guidelines

Material Handling

Max. Water content: 0.06%

Although Product is supplied in sealed containers,drying is recommmended in applications requiring optimum surface aesthtics. A dehumidifying or desiccant dryer operating at 80 degC (176 degF) is recommended. Drying time is dependent on moisture level, but 2-4 hours is generally sufficient. Further information concerning safe handling procedures can be obtained from the Material Safety Data Sheet. Alternatively, please contact your BASF representative.

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Typical Profile
Melt Temperature 280-305 degC (536-581 degF)
Mold Temperature 80-95 degC (176-203 degF)
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 80-95 degC (176-203 degF) is required.

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

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