Product Information

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Ultramid® 8234G HS BK-102
Polyamide 6

BASF The Chemical Company

Product Description

Ultramid 8234G HS BK-102 is heat stabilized, pigmented black, 44% glass reinforced PA6 injection molding compound offering the highest level of strength, stiffness, high temperature performance and dimensional stability. Its resistance to creep under load is excellent. It maintains its inherent chemical resistance to greases, oils and hydrocarbons. It is available in natural and black versions. Pigmented and weatherable versions may be offered on a case by case basis.

Applications

Ultramid 8234G HS BK-102 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	1.49	
Moisture, %	62		
(24 Hour)		0.9	
(50% RH)		1.5	
(Saturation)		5.2	
MECHANICAL	**ISO Test Method**	**Dry**	**Conditioned**
Tensile stress at break, MPa	527		
23C		195	-
Tensile strain at break, %	527		
23C		2	-
Flexural Strength, MPa	178		
23C		290	-
Flexural Modulus, MPa	178		
23C		11,800	-
IMPACT	**ISO Test Method**	**Dry**	**Conditioned**
Izod Notched Impact, kJ/m^2	180		
23C		14	-
Charpy Notched, kJ/m^2	179		
23C		15	-
Charpy Unnotched, kJ/m^2	179		
23C		70	-
THERMAL	**ISO Test Method**	**Dry**	**Conditioned**
Melting Point, C	3146	220	-
HDT A, C	75	210	-
HDT B, C	75	220	-
UL RATINGS	**UL Test Method**	**Property Value**	
Flammability Rating, 1.5mm	UL94	HB	
Relative Temperature Index, 1.5mm	UL746B		
Mechanical w/o Impact, C		140	
Mechanical w/ Impact, C		105	
Electrical, C		140	

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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.

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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