Product Information

Aug 2013

Ultramid® 8235G HS BK-102
Polyamide 6

Product Description

Ultramid 8235G HS BK-102 is a heat stabilized, pigmented black, 50% glass fiber reinforced PA6 injection molding compound offering excellent level of strength, stiffness, high temperature performance and dimensional stability. Its resistance to creep under load is excellent. It is available in natural, black, weather resistance and pigmented versions.

Applications

Ultramid 8235G HS BK-102 is generally recommended for applications such as power tool housings, cattle ear taggers, luggage frames, fans and pressure regulator housings.

PHYSICAL	ASTM Test Method	Property Value	
Specific Gravity	D-792	1.56	
Mold Shrinkage (1/8" bar, in/in)		0.002	
Moisture, %	D-570		
(50% RH)		1.4	
(Saturation)		4.8	
MECHANICAL	**ASTM Test Method**	**Dry**	**Conditioned**
Tensile Strength, Break, MPa (psi)	D-638		
23C (73F)		210 (30,400)	145 (21,000)
Elongation, Break, %	D-638		
23C (73F)		2	6
Flexural Modulus, MPa (psi)	D-790		
23C (73F)		14,700 (2,130,000)	-
IMPACT	**ASTM Test Method**	**Dry**	**Conditioned**
Notched Izod Impact, J/M (ft-lbs/in)	D-256		
23C (73F)		139 (2.6)	-
THERMAL	**ASTM Test Method**	**Dry**	**Conditioned**
Melting Point, C(F)	D-3418	220 (428)	-
ELECTRICAL	**ASTM Test Method**	**Dry**	**Conditioned**
Volume Resistivity, 1.5 mm	D-257	>1E13	-

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)

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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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