Product Information

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Ultramid® 8260 HS BK-102
Polyamide 6

BASF The Chemical Company

Product Description

Ultramid 8260 HS BK-102 is a heat stabilized, pigmented black, 40% mineral reinforced PA6 injection molding resin. It possesses high stiffness, dimensional stability and heat resistance combined with excellent processability including low warp and resistance to sink-mark formation. It maintains its inherent chemical resistance to greases, oils and hydrocarbons.

Applications

Ultramid 8260 HS BK-102 is generally recommended for applications such as marine hardware, brackets, fittings, bobbins, office furniture, appliance components, and power tool housings.

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm	1183	1.49	
Moisture, %	62		
(24 Hour)		1.1	
(50% RH)		1.6	
(Saturation)		5.7	
MECHANICAL	**ISO Test Method**	**Dry**	**Conditioned**
Tensile Modulus, MPa	527		
-40C		8,310	7,700
23C		6,400	3,800
80C		1,360	1,400
121C		970	1,200
Tensile stress at break, MPa	527		
-40C		135	135
23C		85	60
80C		40	35
121C		30	27
Tensile strain at break, %	527		
23C		10	30
Flexural Strength, MPa	178		
23C		140	50
Flexural Modulus, MPa	178		
23C		5,200	2,100
IMPACT	**ISO Test Method**	**Dry**	**Conditioned**
Izod Notched Impact, kJ/m^2	180		
23C		6	-
Charpy Notched, kJ/m^2	179		
23C		3	-
Charpy Unnotched, kJ/m^2	179		
23C		130	-
THERMAL	**ISO Test Method**	**Dry**	**Conditioned**
Melting Point, C	3146	220	-
HDT A, C	75	90	-

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HDT B, C	75	190	-
ELECTRICAL	**ISO Test Method**	**Dry**	**Conditioned**
Volume Resistivity	IEC 60093	>1E13	-
UL RATINGS	**UL Test Method**	**Property Value**	
Flammability Rating, 1.5mm	UL94	HB	
Relative Temperature Index, 1.5mm	UL746B		
Mechanical w/o Impact, C		65	
Mechanical w/ Impact, C		65	
Electrical, C		65	

Processing Guidelines

Material Handling
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 Material Safety Data Sheet (MSDS), or by contacting your BASF representative.

Typical Profile
Melt Temperature 270-295 degC (518-563 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 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

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