

Ultramid® 8231G HS BK-102

Polyamide 6



Product Description

Ultramid 8231G HS BK-102 is a black pigmented heat stabilized, 15% glass fiber reinforced PA6 injection molding compound. The glass fiber reinforcement enhances performance such as strength, stiffness and heat deflection temperature. The heat stabilizer system extends the properties at elevated temperatures. It also has excellent chemical resistance to greases, oils and hydrocarbons.

Applications

Ultramid 8231G HS BK-102 is ideally suited for more demanding performance applications such as safety helmet parts, washers, gears, engine and motor parts, chutes, and higher temperature environments.

PHYSICAL	ASTM Test Method	Property Value	
Specific Gravity	D-792	1.23	
Mold Shrinkage (1/8" bar, in/in)		0.005	
Moisture, %	D-570		
(24 Hour)		1.4	
(50% RH)		2.3	
(Saturation)		8.1	
MECHANICAL	ASTM Test Method	Dry	Conditioned
Tensile Strength, Break, MPa (psi)	D-638		
-40C (-40F)		150 (21,700)	150 (21,700)
23C (73F)		130 (18,900)	60 (8,700)
80C (176F)		60 (8,700)	30 (4,350)
121C (250F)		50 (7,250)	40 (5,800)
Elongation, Break, %	D-638		
-40C (-40F)		3	3
23C (73F)		3	20
80C (176F)		14	15
121C (250F)		10	9
Flexural Modulus, MPa (psi)	D-790		
23C (73F)		5,200 (754,000)	-
Rockwell Hardness, R Scale	D-785	121	-
IMPACT	ASTM Test Method	Dry	Conditioned
Notched Izod Impact, J/M (ft-lbs/in)	D-256		
23C (73F)		45 (0.8)	-
Drop Weight Impact, ft-lbs, 23C	BASF Drop Weight Impact Test	2	-
THERMAL	ASTM Test Method	Dry	Conditioned
Melting Point, C(F)	D-3418	220 (428)	-
Heat Deflection @ 264 psi (1.8 MPa) C(F)	D-648	201 (393)	-
Coef. of Linear Thermal Expansion, mm/mm C (in/in F)	E-831	0.5 X10-4	-
UL RATINGS	UL Test Method	Property Value	



Ultramid® 8231G HS BK-102



Flammability Rating, 1.5mm	UL94	HB
Relative Temperature Index, 1.5mm	UL746B	
Mechanical w/o Impact, C		105
Mechanical w/ Impact, C		105
Electrical, C		130

