Product Information

Ultramid® 8231G HS
Polyamide 6

BASF
The Chemical Company

Product Description

Ultramid 8231G HS is a heat stabilized, 15% glass fiber reinforced PA6 injection molding compound. It is also available in non-heat stabilized (Ultramid 8231) and/or pigmented versions. 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 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	ISO Test Method	Property Value	
Density, g/cm	1183	1.23	
Moisture, %	62		
(24 Hour)		1.4	
(50% RH)		2.3	
(Saturation)		8.1	
MECHANICAL	**ISO Test Method**	**Dry**	**Conditioned**
Tensile Modulus, MPa	527		
-40C		5,950	6,600
23C		5,960	2,640
80C		2,470	2,300
121C		2,090	1,900
Tensile stress at break, MPa	527		
-40C		160	170
23C		140	80
80C		60	20
121C		50	40
Tensile strain at break, %	527		
23C		4	9
Flexural Strength, MPa	178		
23C		160	65
Flexural Modulus, MPa	178		
23C		4,770	2,210
IMPACT	**ISO Test Method**	**Dry**	**Conditioned**
Izod Notched Impact, kJ/m^2	180		
23C		5	-
Charpy Notched, kJ/m^2	179		
23C		6.5	-
-30C		5.5	-
Charpy Unnotched, kJ/m^2	179		
23C		40	-
THERMAL	**ISO Test Method**	**Dry**	**Conditioned**

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Melting Point, C	3146	220	-
HDT A, C	75	195	-
HDT B, C	75	217	-
Coef. of Linear Thermal Expansion, Parallel, mm/mm C		0.39 X10-4	-
Coef. of Linear Thermal Expansion, Normal, mm/mm C		0.78 X10-4	-
ELECTRICAL	**ISO Test Method**	**Dry**	**Conditioned**
Volume Resistivity	IEC 60093	>1E13	-
Dielectric Constant (100 Hz)	IEC 60250	3.6	-
Dielectric Constant (1 MHz)	IEC 60250	3.4	-
Dissipation Factor (100 Hz)	IEC 60250	100	-
Dissipation Factor (1 MHz)	IEC 60250	200	-
Dielectric Strength, KV/mm	IEC 60243-1	40	-
UL RATINGS	**UL Test Method**	**Property Value**	
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	