

## Ultramid® Advanced T1000 HG7 BK23593

### BASF Corporation - Polyamide 6I/6T Copolymer

Monday, November 4, 2019

#### **General Information**

#### **Product Description**

Preliminary Product - Ultramid Advanced T1000 HG7 BK23593 is a heat stabilized, partially aromatic, 35% glassfiber reinforced polyphthalamide for injection molding with strong mechanical properties especially at elevated temperatures and excellent chemical resistance for highly stressed parts. This material has high strength and stiffness, very low water absorption and outstanding dimensional stability. It features a high melting point (320C) and excellent melt stability.

General			
Material Status	Commercial: Active		
Availability	• Europe	North America	
Filler / Reinforcement	Glass Fiber, 35% Filler by Weight		
Additive	Heat Stabilizer		
	Aromatic	Heat Stabilized	High Stiffness
Features	<ul> <li>Chemical Resistant</li> </ul>	<ul> <li>High Dimensional Stability</li> </ul>	<ul> <li>High Strength</li> </ul>
	<ul> <li>Copolymer</li> </ul>	<ul> <li>High Melt Stability</li> </ul>	<ul> <li>Low to No Water Absorption</li> </ul>
Processing Method	Injection Molding		

ASTM & ISO Properties 1					
Physical	Dry	Conditioned	Unit	Test Method	
Density	1.49		g/cm³	ISO 1183	
Molding Shrinkage				ISO 294-4	
Across Flow	0.93		%		
Flow	0.40		%		
Mechanical	Dry	Conditioned	Unit	Test Method	
Tensile Modulus				ISO 527-2	
73°F	2.03E+6	2.03E+6	psi		
176°F	1.81E+6	1.74E+6	psi		
248°F	1.45E+6		psi		
Tensile Stress				ISO 527-2	
Break, 73°F	31900	30500	psi		
Break, 176°F	26100	21000	psi		
Break, 248°F	19600		psi		
Tensile Strain				ISO 527-2	
Break, 73°F	2.0	1.9	%		
Break, 176°F	2.0	2.2	%		
Break, 248°F	2.9		%		
Impact	Dry	Conditioned	Unit	Test Method	
Charpy Notched Impact Strength				ISO 179	
-22°F	3.8		ft·lb/in²		
73°F	3.8		ft·lb/in²		
Charpy Unnotched Impact Strength				ISO 179	
-22°F	33		ft·lb/in²		
73°F	33		ft·lb/in²		
Thermal	Dry	Conditioned	Unit	Test Method	
Heat Deflection Temperature				ISO 75-2/A	
264 psi, Unannealed	536		°F		



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Thermal	Dry	Conditioned	Unit	Test Method
Melting Temperature (DSC)	608		°F	ISO 3146

Processing Information				
Injection	Dry Unit			
Drying Temperature - Desiccant Dryer	248 °F			
Drying Time	8.0 hr			
Suggested Max Moisture	0.050 %			
Processing (Melt) Temp	653 to 680 °F			
Mold Temperature	302 to 338 °F			

#### **Notes**

<sup>&</sup>lt;sup>1</sup> Typical properties: these are not to be construed as specifications.