



Ultramid® Advanced N3HG6

BASF Corporation - Polyamide 9T

Monday, November 4, 2019

General Information

Product Description

Preliminary Product - Ultramid Advanced N3HG6 is a partially aromatic, 30% glassfiber reinforced polyphthalamide for injection molding with strong mechanical properties especially at elevated temperatures, good long-term thermal stability and outstanding chemical resistance for highly stressed parts. This material has high toughness, stiffness, extremely low water absorption and outstanding dimensional stability. It features high flowability and allows filling of complex parts with thin wall thickness. It is easily processable with excellent melt stability.

General

Material Status	• Commercial: Active		
Availability	• Europe	• North America	
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Features	• Aromatic	• High Dimensional Stability	• High Toughness • Low to No Water Absorption
	• Chemical Resistant	• High Flow	
	• Good Processability	• High Melt Stability	
	• Good Thermal Stability	• High Stiffness	
Uses	• Thin-walled Parts		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.37	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.98	%	
Flow	0.47	%	
Water Absorption (Saturation, 73°F)	2.0	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	1.52E+6	psi	ISO 527-2
Tensile Stress (Break, 73°F)	27600	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.5	%	ISO 527-2
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F	4.3	ft·lb/in ²	
73°F	4.3	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179
-22°F	29	ft·lb/in ²	
73°F	31	ft·lb/in ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	518	°F	ISO 75-2/A
Melting Temperature (DSC)	572	°F	ISO 3146

Processing Information

Injection	Nominal Value	Unit
Drying Temperature - Desiccant Dryer	248	°F
Drying Time	8.0	hr
Suggested Max Moisture	0.050	%
Processing (Melt) Temp	608 to 644	°F

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Injection	Nominal Value	Unit
Mold Temperature	212 to 320	°F

Notes

¹ Typical properties: these are not to be construed as specifications.