Ultramid® Endure D3G10 BK20560

BASF Corporation - Polyamide 66

Monday, November 4, 2019

General Information

Product Description

Ultramid Endure D3G10 BK20560 is a glass fiber reinforced injection molding grade with high stiffness, very good flowability, and excellent heat aging resistance up to at least 220 degC (428 degF).

General			
Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber		
Features	• Good Flow	• Heat Aging Resistant	• High Stiffness
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.61	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.77	%	
Flow	0.30	%	
Water Absorption (Saturation, 73°F)	3.7 to 4.3	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.0 to 1.4	%	ISO 62

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			ISO 527-2
73°F	2.52E+6	psi	
302°F	979000	psi	
Tensile Stress			ISO 527-2
Break, 73°F	34800	psi	
Break, 302°F	14400	psi	
Tensile Strain			ISO 527-2
Break, 73°F	2.6	%	
Break, 302°F	4.9	%	
Flexural Modulus (73°F)	2.35E+6	psi	ISO 178
Flexural Stress (73°F)	54400	psi	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F	6.7	ft·lb/in²	
73°F	7.0	ft·lb/in²	
Charpy Unnotched Impact Strength			ISO 179
-22°F	42	ft·lb/in²	
73°F	46	ft·lb/in²	

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Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength			ISO 180
-22°F	8.2	ft·lb/in²	
73°F	8.9	ft·lb/in²	

Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	498	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	478	°F	ISO 75-2/A
Melting Temperature (DSC)	500	°F	ISO 3146

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.12	%
Processing (Melt) Temp	536 to 572	°F
Mold Temperature	176 to 194	°F
Injection Pressure	508 to 1810	psi
Injection Rate	Fast	

Notes

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