HiDura™ MED AG33 NT0862

Ascend Performance Materials Operations LLC - Polyamide 66

General Information

Product Description

HiDura MED AG33 NT is an injection moldable glass fiber reinforced PA66 resin designed for healthcare applications. It is characterized by excellent strength & stiffness for structural needs. The product is compliant to ISO 10993-5 and ISO 10993-10. It is very easy to color and exhibits good property retention after most sterilization methods.

General

Filler / Reinforcement	• Glass Fiber, 33% Filler by Weight		
Additive	• Lubricant	• Mold Release	
Features	• Bromine Free • Chemical Resistant • Corrosion Resistant • Creep Resistant • Fatigue Resistant • Good Colorability • Good Dimensional Stability	• Good Flow • Good Impact Resistance • Good Mold Release • Good Processability • Good Stiffness • Halogen Free • High Rigidity	• High Strength • High Tensile Strength • Homopolymer • Hydrolysis Resistant • Lubricated • Solvent Resistant
Agency Ratings	• BSE/TSE Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID	• PA66-GF33		

Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.40	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	0.90	--	%	
Flow : 73°F, 0.0787 in	0.40	--	%	
Water Absorption (24 hr, 73°F)	0.80	--	%	ISO 62
Water Absorption				ISO 62
Equilibrium, 73°F, 50% RH	1.7	--	%	
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (73°F)	1.54E+6	1.15E+6	psi	ISO 527-1
Tensile Stress (Break, 73°F)	29700	21000	psi	ISO 527-2
Tensile Strain (Break, 73°F)	3.0	5.0	%	ISO 527-2
Flexural Modulus (73°F)	1.48E+6	943000	psi	ISO 178
Flexural Stress (73°F)	42100	29000	psi	ISO 178
Poisson's Ratio (73°F)	0.40	--		ISO 527-2
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	5.2	5.2	ft·lb/in²	
-22°F	5.2	5.2	ft·lb/in²	
73°F	6.2	8.1	ft·lb/in²	

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Impact	Dry	Conditioned	Unit	Test Method
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	33	36	ft·lb/in²	
-22°F	34	37	ft·lb/in²	
73°F	41	48	ft·lb/in²	
Notched Izod Impact Strength				ISO 180/1A
-40°F	4.8	5.2	ft·lb/in²	
-22°F	4.8	5.7	ft·lb/in²	
73°F	5.7	7.6	ft·lb/in²	

Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/B
66 psi, Unannealed	500	--	°F	
Deflection Temperature Under Load				ISO 75-2/A
264 psi, Unannealed	482	--	°F	
Melting Temperature	500	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	1.2E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	5.9E-5	--	in/in/°F	ISO 11359-2

Processing Information

Injection	Dry	Unit
Drying Temperature	176	°F
Drying Time	4.0	hr
Rear Temperature	536 to 590	°F
Middle Temperature	536 to 590	°F
Front Temperature	536 to 590	°F
Nozzle Temperature	536 to 590	°F
Processing (Melt) Temp	545 to 581	°F
Mold Temperature	149 to 203	°F

Notes

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