HiDura™ MED AI1 NT0861

Ascend Performance Materials Operations LLC - Polyamide 66

General Information

Product Description

HiDura MED AI1 NT0861 is a high impact-modified PA66 resin designed for healthcare applications. The product provides all the processing and performance advantages of PA66 with excellent impact strength even at low temperatures and can be easily colored. This product offers a combination of engineering properties characterized by excellent toughness and flexibility; high melt point; and resistance to many chemicals including disinfectants. The product is compliant to ISO 10993-5 and ISO 10993-10. It exhibits good property retention after most sterilization methods.

General

Additive	• Impact Modifier	• Lubricant	• Mold Release
Features	• Acoustic Barrier • Bromine Free • Chemical Resistant • Corrosion Resistant • Crack Resistant • Ductile • Good Colorability	• Good Impact Resistance • Good Processability • Good Surface Finish • Halogen Free • High Toughness • Homopolymer • Impact Modified	• Low Temperature Impact Resistance • Low Temperature Toughness • Lubricated • Solvent Resistant • Ultra High Impact Resistance
Agency Ratings	• BSE/TSE Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding	• Profile Extrusion	
Resin ID	• PA66-I		

Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.08	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	1.6	--	%	
Flow : 73°F, 0.0787 in	1.8	--	%	
Water Absorption (24 hr, 73°F)	1.0	--	%	ISO 62
Water Absorption				ISO 62
Equilibrium, 73°F, 50% RH	2.1	--	%	
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (73°F)	319000	203000	psi	ISO 527-1
Tensile Stress (Yield, 73°F)	7250	5080	psi	ISO 527-2
Tensile Stress (Break, 73°F)	6240	5660	psi	ISO 527-2
Tensile Strain (Break, 73°F)	50	180	%	ISO 527-2
Flexural Modulus (73°F)	261000	72500	psi	ISO 178
Flexural Stress (73°F)	7690	2470	psi	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	17	12	ft·lb/in²	
73°F	36	52	ft·lb/in²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	No Break	No Break		
73°F	No Break	No Break		

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Impact	Dry	Conditioned	Unit	Test Method
Notched Izod Impact Strength				ISO 180/1A
-22°F	19	14	ft·lb/in²	
73°F	37	42	ft·lb/in²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load				ISO 75-2/B
66 psi, Unannealed	293	--	°F	
Deflection Temperature Under Load				ISO 75-2/A
264 psi, Unannealed	136	--	°F	
Melting Temperature	500	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	9.3E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	8.3E-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.