

HiDura™ MED AP NT0860

 Ascend Performance Materials Operations LLC - *Polyamide 66*
General Information
Product Description

HiDura MED AP NT0860 is an unfilled resin designed for healthcare applications. It is a lubricated PA66 resin with fast cycle times even in large cavitation tools for higher productivity and can easily be colored. This product offers a combination of engineering properties characterized by high strength; rigidity; good toughness; high melt point; good surface lubricity; abrasion resistance; 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

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Lubricant	• Mold Release	• Nucleating Agent
Features	• Abrasion Resistant • Balanced Stiffness/Toughness • Bromine Free • Chemical Resistant • Corrosion Resistant • Ductile • Excellent Processability • Fast Molding Cycle	• Good Colorability • Good Electrical Properties • Good Flow • Good Mold Release • Good Rigidity • Good Stiffness • Good Surface Finish • Halogen Free	• High Toughness • Highly Crystalline • Homopolymer • Ignition Resistant • Lubricated • Medium Viscosity • Nucleated • Solvent Resistant
Agency Ratings	• BSE/TSE Compliant	• ISO 1043 PA66	
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding	• Profile Extrusion	
Resin ID	• PA66		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.14	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	2.0	--	%	
Flow : 73°F, 0.0787 in	2.0	--	%	
Water Absorption (24 hr, 73°F)	1.2	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	2.4	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	421000	276000	psi	ISO 527-1
Tensile Stress (Yield, 73°F)	12900	8700	psi	ISO 527-2
Tensile Stress (Break, 73°F)	11700	7110	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	4.8	20	%	ISO 527-2
Tensile Strain (Break, 73°F)	29	76	%	ISO 527-2
Flexural Modulus (73°F)	479000	160000	psi	ISO 178
Flexural Stress (73°F)	15200	4350	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
-22°F	2.4	3.3	ft·lb/in ²	
73°F	2.9	11	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	No Break	No Break		



73°F	No Break	No Break		
Notched Izod Impact Strength				ISO 180/1A
-22°F	2.4	3.3	ft·lb/in ²	
73°F	2.9	11	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	410	--	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	162	--	°F	ISO 75-2/A
Melting Temperature	500	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	5.6E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	5.6E-5	--	in/in/°F	ISO 11359-2
Flammability	Dry	Conditioned	Unit	Test Method
Oxygen Index ²	26	--	%	ISO 4589-2

Processing Information

Injection	Dry Unit
Drying Temperature	158 °F
Drying Time	1.0 to 3.0 hr
Rear Temperature	500 to 536 °F
Middle Temperature	518 to 545 °F
Front Temperature	536 to 554 °F
Nozzle Temperature	536 to 572 °F
Processing (Melt) Temp	545 to 572 °F
Mold Temperature	149 to 203 °F

Notes

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

² Railway Application

