HiDura™ MED AP NT0860

polyamide 66

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

Additive	• Lubricant	• Release agent	
Features	• Abrasion Resistance	• 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 Content, None	• High Crystallinity	• High Toughness
	• Homopolymer	• Ignition Resistant	• Lubricated
	• Medium Viscosity	• Nucleated	• Solvent Resistant
Agency Rating	• BSE/TSE Compliant	• ISO, 1043 PA66	
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding	• Profile Extrusion	

Physical	dry	cond.	Unit	Test Standard
Density	1.14	-	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	2.0	*	%	
Flow : 23°C, 2.00 mm	2.0	*	%	
Water Absorption				ISO 62
23°C, 24 hr	1.2	*	%	
Equilibrium, 23°C, 50% RH	2.4	*	%	

Mechanical	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	2900	1900	MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	89	60	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	81	49	MPa	ISO 527-2
Tensile Strain (Yield, 23°C)	4.8	20	%	ISO 527-2
Tensile Strain (Break, 23°C)	29	76	%	ISO 527-2
Flexural Modulus (23°C)	3300	1100	MPa	ISO 178
Flexural Strength (23°C)	105	30	MPa	ISO 178

Poisson's Ratio (23°C)	0.4			ISO 527-2

Impact	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	6	23	kJ/m²	
-30°C	5	7	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	N	N	kJ/m²	
-30°C	N	N	kJ/m²	
Notched Izod Impact Strength				ISO 180/1A
+23°C	6	23	kJ/m²	
-30°C	5	7	kJ/m²	

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	72	-	°C	
0.45 MPa, Unannealed	210	-	°C	
Melting Temperature	260	*	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	100	*	E-6/K	
Transverse : 23 to 55°C, 2.00 mm	100	*	E-6/K	

Railway Application	dry	cond.	Unit	Test Standard
Oxygen index	26	-	%	EN ISO 4589-2

Injection	Value	Unit
Drying Temperature	70	°C
Drying Time	1 - 3	h
Rear Temperature	260 - 280	°C
Middle Temperature	270 - 285	°C
Front Temperature	280 - 290	°C
Nozzle temperature	280 - 300	°C
Processing (Melt) Temperature	285 - 300	°C
Mold Temperature	65 - 95	°C

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Disclaimer

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CAUTION: Do not use Ascend Performance Materials Operations MED grades in medical applications involving implantation in the human body or contact with internal body fluids or tissues for extended periods of time.