Ascend Performance Materials Vydyne® 49H NT Nylon 66, Impact Modified, DAM

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, Impact Grade

Material Notes:

Vydyne® 49H NT is general-purpose, impact-modified PA66 resin. Available in natural, it is heat-stabilized for improved resistance to elevated temperatures. The heat-stabilized for improved resistance to elevated temperatures. The heat stabilization package for Vydyne 49H NT was formulated to provide thermal endurance when used in applications in which continuous or extended high-temperature exposure is anticipated. Vydyne 49H NT is recognized for all the processing and property advantages inherent to PA66 with the addition of improved impact strength. This resin offers a well balanced combination of engineering properties characterized by high melt point, good surface lubricity abrasion resistance and resistance to many chemicals, machine and motor oils, solvents and gasoline. Typical Applications/End Uses: Vydyne 49H NT may be used in most market segments, including industrial, consumer, automotive and electrical applications. Typical end uses include clips, fasteners, gears, cable ties, electrical connectors and many other parts that require additional toughness at room and low temperatures. Availability:Asia PacificEuropeNorth AmericaAdditive:Impact Modifier Features: Gasoline ResistanceGeneral PurposeGood Abrasion ResistanceGood Chemical ResistanceGood ProcessabilityGood ToughnessHigh Impact ResistanceImpact ModifiedLow Temperature Impact ResistanceLow Temperature ToughnessOil ResistantSolvent ResistantUses:Automotive ApplicationsConnectorsConsumer ApplicationsElectrical/Electronic ApplicationsFastenersGearsGeneral PurposeIndustrial ApplicationsAppearance: Natural ColorForms: PelletsProcessing Method: Injection MoldingInformation provided by Ascend Performance Materials.

Order this product through the following link:
http://www.lookpolymers.com/polymer_Ascend-Performance-Materials-Vydyne-49H-NT-Nylon-66-Impact-Modified-DAM.php

Physical Properties	Metric	English	Comments
Density	1.10 g/cc	0.0397 lb/in³	ISO 1183
Water Absorption	1.3 % @Time 86400 sec	1.3 % @Time 24.0 hour	ISO 62
Moisture Absorption at Equilibrium	2.3 %	2.3 %	50% RH; ISO 62
Linear Mold Shrinkage, Flow	0.018 cm/cm @Diameter 2.00 mm	0.018 in/in @Diameter 0.0787 in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.016 cm/cm @Diameter 2.00 mm	0.016 in/in @Diameter 0.0787 in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	46.0 MPa	6670 psi	ISO 527-2
Tensile Strength, Yield	70.0 MPa	10200 psi	ISO 527-2
Elongation at Break	17 %	17 %	ISO 527-2

Mechanical Properties	Metric	English	Comments
Tensile Modulus	3.04 GPa	441 ksi	ISO 527-2
Flexural Strength	81.0 MPa	11700 psi	ISO 178
Flexural Modulus	2.60 GPa	377 ksi	ISO 178
Izod Impact, Notched (ISO)	8.00 kJ/m² @Temperature -40.0 °C	3.81 ft-lb/in² @Temperature -40.0 °F	ISO 180
	9.00 kJ/m² @Temperature -30.0 °C	4.28 ft-lb/in² @Temperature -22.0 °F	ISO 180
	10.0 kJ/m² @Temperature 23.0 °C	4.76 ft-lb/in² @Temperature 73.4 °F	ISO 180
Charpy Impact Unnotched	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ISO 179
	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ISO 179
Charpy Impact, Notched	0.800 J/cm² @Temperature -40.0 °C	3.81 ft-lb/in² @Temperature -40.0 °F	ISO 179
	1.10 J/cm² @Temperature -30.0 °C	5.23 ft-lb/in² @Temperature -22.0 °F	ISO 179
	1.30 J/cm² @Temperature 23.0 °C	6.19 ft-lb/in² @Temperature 73.4 °F	ISO 179

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	8.60 µm/m-°C @Thickness 2.00 mm, Temperature 23.0 - 55.0 °C	4.78 µin/in-°F @Thickness 0.0787 in, Temperature 73.4 - 131 °F	ISO 11359-2
CTE, linear, Transverse to Flow	12.0 µm/m-°C @Thickness 2.00 mm, Temperature 23.0 - 55.0 °C	6.67 µin/in-°F @Thickness 0.0787 in, Temperature 73.4 - 131 °F	ISO 11359-2
Melting Point	260 °C	500 °F	ISO 11357-3
Deflection Temperature at 0.46 MPa (66 psi)	202 °C	396 °F	Unannealed; ISO 75-2/B
Deflection Temperature at 1.8 MPa (264 psi)	69.0 °C	156 °F	Unannealed; ISO 75-2/A

Thermal Properties	Metric	English	Comments
	130 °C @Thickness 0.750 mm	266 °F @Thickness 0.0295 in	
	130 °C @Thickness 1.50 mm	266 °F @Thickness 0.0591 in	UL 746
	130 °C @Thickness 3.00 mm	266 °F @Thickness 0.118 in	UL 746
UL RTI, Mechanical with Impact	75.0 °C @Thickness 0.750 mm	167 °F @Thickness 0.0295 in	UL 746
	75.0 °C @Thickness 1.50 mm	167 °F @Thickness 0.0591 in	UL 746
	75.0 °C @Thickness 3.00 mm	167 °F @Thickness 0.118 in	UL 746
UL RTI, Mechanical without Impact	110 °C @Thickness 0.750 mm	230 °F @Thickness 0.0295 in	UL 746
	110 °C @Thickness 1.50 mm	230 °F @Thickness 0.0591 in	UL 746
	110 °C @Thickness 3.00 mm	230 °F @Thickness 0.118 in	UL 746
Flammability, UL94	HB @Thickness 0.750 mm	HB @Thickness 0.0295 in	
	HB @Thickness 1.50 mm	HB @Thickness 0.0591 in	
	HB @Thickness 3.00 mm	HB @Thickness 0.118 in	
Glow Wire Test	700 °C @Thickness 3.00 mm	1290 °F @Thickness 0.118 in	Flammability Index; IEC 60695-2-12
	725 °C @Thickness 0.750 mm	1340 °F @Thickness 0.0295 in	Flammability Index; IEC 60695-2-12
	725 °C @Thickness 3.00 mm	1340 °F @Thickness 0.118 in	Ignition Temperature; IEC 60695-2-13
	750 °C	1380 °F	

Thermal Properties	Metric	English	Comments
	@Thickness 1.50 mm	@Thickness 0.0591 in	Flammability Index; IEC 60695-2-12
	750 °C @Thickness 0.750 mm	1380 °F @Thickness 0.0295 in	Ignition Temperature; IEC 60695-2-13
	775 °C @Thickness 1.50 mm	1430 °F @Thickness 0.0591 in	Ignition Temperature; IEC 60695-2-13

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+11 ohm-cm @Thickness 0.750 mm	1.00e+11 ohm-cm @Thickness 0.0295 in	IEC 60093
Dielectric Strength	14.0 kV/mm @Thickness 1.00 mm	356 kV/in @Thickness 0.0394 in	IEC 60243
Arc Resistance	60 - 119 sec @Thickness 3.00 mm	60 - 119 sec @Thickness 0.118 in	ASTM D495
Comparative Tracking Index	525 V @Thickness 3.00 mm	525 V @Thickness 0.118 in	IEC 60112
Hot Wire Ignition, HWI	7.0 - 14 sec @Thickness 0.750 mm	7.0 - 14 sec @Thickness 0.0295 in	UL 746
	7.0 - 14 sec @Thickness 1.50 mm	7.0 - 14 sec @Thickness 0.0591 in	UL 746
	14 - 29 sec @Thickness 3.00 mm	14 - 29 sec @Thickness 0.118 in	UL 746
High Amp Arc Ignition, HAI	>= 120 arcs @Thickness 0.750 mm	>= 120 arcs @Thickness 0.0295 in	UL 746
	>= 120 arcs @Thickness 1.50 mm	>= 120 arcs @Thickness 0.0591 in	UL 746
	>= 120 arcs @Thickness 3.00 mm	>= 120 arcs @Thickness 0.118 in	UL 746
High Voltage Arc-Tracking Rate, HVTR	25.5 - 80.0 mm/min	1.00 - 3.15 in/min	UL 746

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	280 - 310 °C	536 - 590 °F	

Processing Properties	Metric	English	Comments
Middle Barrel Temperature	280 - 310 °C	536 - 590 °F	
Front Barrel Temperature	280 - 310 °C	536 - 590 °F	
Nozzle Temperature	280 - 310 °C	536 - 590 °F	
Melt Temperature	285 - 305 °C	545 - 581 °F	
Mold Temperature	65.0 - 95.0 °C	149 - 203 °F	
Drying Temperature	80.0 °C	176 °F	
Dry Time	4.00 hour	4.00 hour	

Descriptive Properties	Value	Comments
Suggested Max Regrind	25 %	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com
Email : sales@lookpolymers.com
Tel : +86 021-51131842
Mobile : +86 13061808058
Skype : lookpolymers
Address : United North Road 215,Fengxian District, Shanghai City,China