

Ascend Performance Materials Vydyne® 41H BK03 Nylon 66, Impact Modified, DAM

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

Material Notes:

Vydyne® 41H BK03 is a general-purpose, impact-modified PA66 resin. Available in black, it is heat-stabilized for improved resistance to elevated temperatures. The heat stabilization package for Vydyne 41H BK03 was formulated to provide thermal endurance when used in applications in which continuous or extended high-temperature exposure is anticipated. Vydyne 41H BK03 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. Availability: Asia Pacific Europe North America Additive: Impact Modifier Features: Gasoline Resistance Good Abrasion Resistance Good Chemical Resistance Good Processability High Impact Resistance Impact Modified Low Temperature Impact Resistance Oil Resistant Solvent Resistant Uses: Automotive Applications Connectors Consumer Applications Electrical/Electronic Applications Fasteners Gears Industrial Applications Appearance: Black Forms: Pellets Processing Method: Injection Molding Information provided by Ascend Performance Materials.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Ascend-Performance-Materials-Vydyne-41H-BK03-Nylon-66-Impact-Modified-DAM.php

Physical Properties	Metric	English	Comments
Density	1.08 g/cc	0.0390 lb/in ³	ISO 1183
Water Absorption	1.0 % @Time 86400 sec	1.0 % @Time 24.0 hour	ISO 62
Moisture Absorption at Equilibrium	2.1 %	2.1 %	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	43.0 MPa	6240 psi	ISO 527-2
Tensile Strength, Yield	50.0 MPa	7250 psi	ISO 527-2
Elongation at Break	>= 50 %	>= 50 %	ISO 527-2
Tensile Modulus	1.86 GPa	270 ksi	ISO 527-2
Flexural Strength	53.0 MPa	7690 psi	ISO 178
Flexural Modulus	1.75 GPa	254 ksi	ISO 178

Mechanical Properties	Metric J/m^2	English lb/in^2	Comments
Izod Impact, Notched (ISO)			ISO 180
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	40.0 kJ/m ²	19.0 ft-lb/in ²	ISO 180
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	78.0 kJ/m ²	37.1 ft-lb/in ²	ISO 180
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact Unnotched	NB	NB	ISO 179
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	NB	NB	ISO 179
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	2.00 J/cm ²	9.52 ft-lb/in ²	ISO 179
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	3.50 J/cm ²	16.7 ft-lb/in ²	ISO 179
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	7.60 J/cm ²	36.2 ft-lb/in ²	ISO 179
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	17.0 $\mu\text{m/m-}^\circ\text{C}$	9.44 $\mu\text{in/in-}^\circ\text{F}$	
	@Thickness 2.00 mm, Temperature 23.0 - 55.0 °C	@Thickness 0.0787 in, Temperature 73.4 - 131 °F	ISO 11359-2
CTE, linear, Transverse to Flow	15.0 $\mu\text{m/m-}^\circ\text{C}$	8.33 $\mu\text{in/in-}^\circ\text{F}$	
	@Thickness 2.00 mm, Temperature 23.0 - 55.0 °C	@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)	145 °C	293 °F	Unannealed; ISO 75-2/B
Deflection Temperature at 1.8 MPa (264 psi)	58.0 °C	136 °F	Unannealed; ISO 75-2/A
UL RTI, Electrical	130 °C	266 °F	UL 746
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	130 °C	266 °F	UL 746

Thermal Properties	@Thickness 1.50 mm Metric	@Thickness 0.0591 in English	Comments
	130 °C	266 °F	UL 746
	@Thickness 3.00 mm	@Thickness 0.118 in	
UL RTI, Mechanical with Impact	75.0 °C	167 °F	UL 746
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	75.0 °C	167 °F	UL 746
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	75.0 °C	167 °F	UL 746
	@Thickness 3.00 mm	@Thickness 0.118 in	
UL RTI, Mechanical without Impact	115 °C	239 °F	UL 746
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	120 °C	248 °F	UL 746
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	125 °C	257 °F	UL 746
	@Thickness 3.00 mm	@Thickness 0.118 in	
Flammability, UL94	HB	HB	
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	HB	HB	
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	HB	HB	
	@Thickness 3.00 mm	@Thickness 0.118 in	
Glow Wire Test	625 °C	1160 °F	Flammability Index; IEC 60695-2-12
	@Thickness 3.00 mm	@Thickness 0.118 in	
	700 °C	1290 °F	Ignition Temperature; IEC 60695-2-13
	@Thickness 3.00 mm	@Thickness 0.118 in	
	725 °C	1340 °F	Flammability Index; IEC 60695-2-12
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	725 °C	1340 °F	Flammability Index; IEC 60695-2-12
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	750 °C	1380 °F	Ignition Temperature; IEC 60695-2-13
	@Thickness 0.750 mm	@Thickness 0.0295 in	

Thermal Properties	750 °C Metric	1380 °F English	Comments
	@Thickness 1.50 mm	@Thickness 0.0591 in	Ignition Temperature: IEC 60695-2-13

Electrical Properties	Metric	English	Comments
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	600 V @Thickness 3.00 mm	600 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
	15 - 29 sec @Thickness 3.00 mm	15 - 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	
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	

Processing Properties	Metric	English	Comments
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