

Ascend Performance Materials Vydyn® 49 Nylon 66, DAM

Category : Polymer , Thermoplastic , Nylon , Nylon 66

Material Notes:

Vydyn® 49 is a general-purpose, impact-modified PA66 resin. Available in natural, it 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 General Purpose Good Abrasion Resistance Good Chemical Resistance Good Processability Good Toughness High Impact Resistance Impact Modified Low Temperature Impact Resistance Oil Resistant Solvent Resistant Uses: Automotive Applications Connectors Consumer Applications Electrical/Electronic Applications Fasteners Gears General Purpose Industrial Applications Appearance: Natural Color Forms: Pellets Processing Method: Injection Molding Information provided by Ascend

Order this product through the following link:

http://www.lookpolymers.com/polymer_Ascend-Performance-Materials-Vydyn-49-Nylon-66-DAM.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.11 g/cc	1.11 g/cc	ISO 1183
Water Absorption	1.3 %	1.3 %	24 hrs; ISO 62
Moisture Absorption at Equilibrium	2.3 %	2.3 %	50% RH; ISO 62
Linear Mold Shrinkage	0.018 cm/cm @Thickness 2.00 mm	0.018 in/in @Thickness 0.0787 in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.016 cm/cm @Thickness 2.00 mm	0.016 in/in @Thickness 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
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
	11.0 kJ/m²	5.23 ft-lb/in²	

Mechanical Properties	Metric	English	ISO 180 Comments
	13.0 kJ/m ² @Temperature 23.0 °C	6.19 ft-lb/in ² @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/cm ² @Temperature -40.0 °C	3.81 ft-lb/in ² @Temperature -40.0 °F	ISO 179
	0.900 J/cm ² @Temperature -30.0 °C	4.28 ft-lb/in ² @Temperature -22.0 °F	ISO 179
	1.00 J/cm ² @Temperature 23.0 °C	4.76 ft-lb/in ² @Temperature 73.4 °F	ISO 179

Thermal Properties	Metric	English	Comments
CTE, linear	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	ISO 75-2/B
Deflection Temperature at 1.8 MPa (264 psi)	69.0 °C	156 °F	ISO 75-2/A
UL RTI, Electrical	125 °C @Thickness 0.750 mm	257 °F @Thickness 0.0295 in	UL 746
	125 °C @Thickness 1.50 mm	257 °F @Thickness 0.0591 in	UL 746
	125 °C @Thickness 3.00 mm	257 °F @Thickness 0.118 in	UL 746

Thermal Properties	75.0 °C Metric	167 °F English	Comments
UL RTI, Mechanical with Impact	@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	85.0 °C	185 °F	UL 746
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	85.0 °C	185 °F	UL 746
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	85.0 °C	185 °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	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+12 ohm-cm	1.00e+12 ohm-cm	IEC 60093
	@Thickness 0.750 mm	@Thickness 0.0295 in	
Dielectric Strength	23.0 kV/mm	584 kV/in	ASTM D149
	@Thickness 1.00 mm	@Thickness 0.0394 in	
Arc Resistance	120 - 179 sec	120 - 179 sec	ASTM D495
	@Thickness 3.00 mm	@Thickness 0.118 in	
Comparative Tracking Index	600 V	600 V	IEC 60112
	@Thickness 3.00 mm	@Thickness 0.118 in	
Hot Wire Ignition, HWI	7.0 - 14 sec	7.0 - 14 sec	UL 746
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	7.0 - 14 sec	7.0 - 14 sec	UL 746

Electrical Properties	@Thickness 1.50 mm Metric	@Thickness 0.0591 in English	Comments
	15 - 29 sec	15 - 29 sec	UL 746
	@Thickness 3.00 mm	@Thickness 0.118 in	
High Amp Arc Ignition, HAI	>= 120 arcs	>= 120 arcs	UL 746
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	>= 120 arcs	>= 120 arcs	UL 746
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	>= 120 arcs	>= 120 arcs	UL 746
	@Thickness 0.750 mm	@Thickness 0.0295 in	
High Voltage Arc-Tracking Rate, HVTR	10.1 - 25.4 mm/min	0.398 - 1.00 in/min	UL 746

Processing Properties	Metric	English	Comments
Processing Temperature	285 - 305 °C	545 - 581 °F	Melt
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	
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