

Ascend Performance Materials Vydyn® 66B Nylon 66, General Purpose, high viscosity, DAM

Category : Polymer , Thermoplastic , Nylon , Nylon 66

Material Notes:

Vydyn® 66B is a high-viscosity, heat-stabilized PA66 resin suitable for injection-molding and extrusion applications. It is available in natural color only. Vydyn 66B resin offers high strength, rigidity and toughness over a broad range of demanding applications and good fluid resistance to a wide variety of chemicals, solvents and oils. Typical Applications/End Uses: Typical uses include packaging films, monofilaments, bristles, rods, tubing, sheet and extruded profiles. Availability: Asia Pacific Europe North America Features: Gasoline Resistance General Purpose Good Chemical Resistance Good Melt Strength Good Toughness High Molecular Weight High Rigidity High Strength High Viscosity Kosher Approved Oil Resistant Solvent Resistant Uses: Film Industrial Applications Monofilaments Profiles Rods Sheet Tubing Appearance: Natural Color Forms: Pellets Processing Method: Extrusion Information provided by Ascend

Order this product through the following link:

http://www.lookpolymers.com/polymer_Ascend-Performance-Materials-Vydyn-66B-Nylon-66-General-Purpose-high-viscosity-DAM.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.14 g/cc	1.14 g/cc	ISO 1183
Water Absorption	1.2 %	1.2 %	24 hrs; ISO 62
Moisture Absorption at Equilibrium	2.5 %	2.5 %	Equilibrium at 50%rh; ISO 62
Linear Mold Shrinkage	0.013 cm/cm	0.013 in/in	ISO 294-4
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Linear Mold Shrinkage, Transverse	0.015 cm/cm	0.015 in/in	ISO 294-4
	@Thickness 2.00 mm	@Thickness 0.0787 in	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	55.0 MPa	7980 psi	ISO 527-2
Tensile Strength, Yield	85.0 MPa	12300 psi	ISO 527-2
Elongation at Break	>= 25 %	>= 25 %	ISO 527-2
Elongation at Yield	5.0 %	5.0 %	ISO 527-2
Tensile Modulus	2.80 GPa	406 ksi	ISO 527-2
Flexural Strength	90.0 MPa	13100 psi	ISO 178
Flexural Modulus	3.10 GPa	450 ksi	ISO 178
Poissons Ratio	0.42	0.42	ISO 527-2

Mechanical Properties	Metric	English	Comments
Impact, Notched (ISO)	6.00 kJ/m ²	2.86 ft-lb/in ²	ISO 180
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact Unnotched	NB	NB	ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	NB	NB	ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	0.600 J/cm ²	2.86 ft-lb/in ²	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	0.600 J/cm ²	2.86 ft-lb/in ²	ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	

Thermal Properties	Metric	English	Comments
CTE, linear	10.0 µm/m-°C	5.56 µin/in-°F	ISO 11359-2
	@Thickness 2.00 mm, Temperature 23.0 - 55.0 °C	@Thickness 0.0787 in, Temperature 73.4 - 131 °F	
CTE, linear, Transverse to Flow	10.0 µm/m-°C	5.56 µin/in-°F	ISO 11359-2
	@Thickness 2.00 mm, Temperature 23.0 - 55.0 °C	@Thickness 0.0787 in, Temperature 73.4 - 131 °F	
Melting Point	260 °C	500 °F	ISO 11357-3
Deflection Temperature at 0.46 MPa (66 psi)	195 °C	383 °F	ISO 75-2/B
Deflection Temperature at 1.8 MPa (264 psi)	70.0 °C	158 °F	ISO 75-2/A
UL RTI, Electrical	130 °C	266 °F	UL 746B
	@Thickness 0.710 mm	@Thickness 0.0280 in	
	130 °C	266 °F	UL 746B
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	130 °C	266 °F	UL 746B
	@Thickness 3.00 mm	@Thickness 0.118 in	
UL RTI, Mechanical with Impact	75.0 °C	167 °F	UL 746B
	@Thickness 0.710 mm	@Thickness 0.0280 in	
	75.0 °C	167 °F	

Thermal Properties	Metric @ Thickness 1.50 mm	English @ Thickness 0.0591 in	UL 746B Comments
UL RTI, Mechanical without Impact	75.0 °C	167 °F	UL 746B
	@Thickness 3.00 mm	@Thickness 0.118 in	
	85.0 °C	185 °F	UL 746B
	@Thickness 0.710 mm	@Thickness 0.0280 in	
Flammability, UL94	85.0 °C	185 °F	UL 746B
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	85.0 °C	185 °F	UL 746B
	@Thickness 3.00 mm	@Thickness 0.118 in	
Glow Wire Test	HB	HB	
	@Thickness 0.710 mm	@Thickness 0.0280 in	
	HB	HB	
	@Thickness 1.50 mm	@Thickness 0.0591 in	
Oxygen Index	V-2	V-2	
	@Thickness 3.00 mm	@Thickness 0.118 in	
	28 %	28 %	ASTM D2863
Flammability Index; IEC 60695-2-12	700 °C	1290 °F	Ignition Temp; IEC 60695-2-12
	@Thickness 0.710 mm	@Thickness 0.0280 in	
	700 °C	1290 °F	Ignition Temp; IEC 60695-2-12
	@Thickness 1.50 mm	@Thickness 0.0591 in	
Flammability Index; IEC 60695-2-12	700 °C	1290 °F	Ignition Temp; IEC 60695-2-12
	@Thickness 3.00 mm	@Thickness 0.118 in	
	850 °C	1560 °F	Flammability Index; IEC 60695-2-12
	@Thickness 0.710 mm	@Thickness 0.0280 in	
Flammability Index; IEC 60695-2-12	850 °C	1560 °F	Flammability Index; IEC 60695-2-12
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	960 °C	1760 °F	Flammability Index; IEC 60695-2-12
	@Thickness 3.00 mm	@Thickness 0.118 in	

Electrical Properties	Metric	English	Comments
	26.0 kV/mm	660 kV/in	

Dielectric Strength Electrical Properties	Metric @ Thickness 1.00 mm	English @ Thickness 0.0394 in	IEC 60243 Comments
Arc Resistance	120 - 179 sec	120 - 179 sec	ASTM D496
	@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 746A
	@Thickness 0.710 mm	@Thickness 0.0280 in	
	15 - 29 sec	15 - 29 sec	UL 746A
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	30 - 59 sec	30 - 59 sec	UL 746A
	@Thickness 3.00 mm	@Thickness 0.118 in	
High Amp Arc Ignition, HAI	>= 120 arcs	>= 120 arcs	UL 746A
	@Thickness 0.710 mm	@Thickness 0.0280 in	
	>= 120 arcs	>= 120 arcs	UL 746A
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	>= 120 arcs	>= 120 arcs	UL 746A
	@Thickness 3.00 mm	@Thickness 0.118 in	
High Voltage Arc-Tracking Rate, HVTR	>= 120 mm/min	>= 4.72 in/min	UL 746A

Processing Properties	Metric	English	Comments
Zone 1	250 - 295 °C	482 - 563 °F	
Zone 2	250 - 295 °C	482 - 563 °F	
Zone 3	250 - 295 °C	482 - 563 °F	
Zone 4	250 - 295 °C	482 - 563 °F	
Zone 5	250 - 295 °C	482 - 563 °F	
Die Temperature	270 - 295 °C	518 - 563 °F	
Melt Temperature	270 - 295 °C	518 - 563 °F	
Back Pressure	3.00 - 17.0 MPa	435 - 2470 psi	

Descriptive Properties	Value	Comments
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Blown Film Bath Temperature Descriptive Properties	20-80°C Value	Comments
Chill Roll Temperature (Cast Film)	20-80°C	

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