Ascend Performance Materials Vydyne® 20NSP Nylon 66, DAM

Category : Polymer , Thermoplastic , Nylon , Nylon 66

Material Notes:

Vydyne® 20NSP is a general-purpose, highly nucleated, lubricated PA66 resin available in natural color. It is designed to crystallize rapidly in order to reduce cycle times and increase productivity through faster part set-up. The higher crystalline structure will increase tensile modulus and strength, reduce elongation and may slightly lower mold shrinkage when compared to standard general-purpose non nucleated PA66. The rapid crystallization of Vydyne 20NSP resin may allow part ejection at higher temperature compared to general-purpose PA66. Critical factors unique to each application such as model design, part design, tolerances and other factors will dictate ultimate cycle time benefits. It is recommended to check critical part dimensions against specifications before adopting shorter molding cycles. Vydyne 20NSP resin has an external lubricant for improved machine feed and an internal lubricant for improved mold release. Typical Applications/End Uses: End uses for Vydyne 20NSP include terminal blocks, bearings, control cams, electrical connectors, housings, cable ties, fasteners, switch components and industrial parts that require chemical resistance, stiffness, wear resistance and rigidity.Availability:Asia PacificEuropeNorth AmericaAdditive: LubricantNucleating Agent Features:Fast Molding CycleGeneral PurposeGood Mold ReleaseGood StiffnessHigh Rigidity LubricatedNucleatedUses:BearingsCamsConnectorsFastenersGeneral PurposeHousingsIndustrial ApplicationsAppearance: Natural ColorForms: PelletsProcessing Method: Injection MoldingInformation provided by Ascend

Order this product through the following link:
http://www.lookpolymers.com/polymer_Ascend-Performance-Materials-Vydyne-20NSP-Nylon-66-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	2.4 %	2.4 %	Equilibrium at 50%rh; ISO 62
Linear Mold Shrinkage	0.014 cm/cm @Thickness 2.00 mm	0.014 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	75.0 MPa	10900 psi	ISO 527-2
Tensile Strength, Yield	98.0 MPa	14200 psi	ISO 527-2
Elongation at Break	13 %	13 %	ISO 527-2
Elongation at Yield	4.5 %	4.5 %	ISO 527-2
Tensile Modulus	3.80 GPa	551 ksi	ISO 527-2

Mechanical Properties	Metric	English	Comments
Flexural Strength	100 MPa	14500 psi	ISO 178
Flexural Modulus	3.20 GPa	464 ksi	ISO 178
Poissons Ratio	0.40	0.40	ISO 527-2
Izod Impact, Notched (ISO)	6.00 kJ/m²	2.86 ft-lb/in²	ISO 180
	5.00 kJ/m² @Temperature -30.0 °C	2.38 ft-lb/in² @Temperature -22.0 °F	ISO 180
Charpy Impact Unnotched	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ISO 179/1eU
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ISO 179/1eU
Charpy Impact, Notched	0.500 J/cm² @Temperature -30.0 °C	2.38 ft-lb/in² @Temperature -22.0 °F	ISO 179/1eA
	0.600 J/cm² @Temperature 23.0 °C	2.86 ft-lb/in² @Temperature 73.4 °F	ISO 179/1eA

Thermal Properties	Metric	English	Comments
CTE, linear	10.0 µm/m-°C @Thickness 2.00 mm, Temperature 23.0 - 55.0 °C	5.56 µin/in-°F @Thickness 0.0787 in, Temperature 73.4 - 131 °F	ISO 11359-2
CTE, linear, Transverse to Flow	10.0 µm/m-°C @Thickness 2.00 mm, Temperature 23.0 - 55.0 °C	5.56 µin/in-°F @Thickness 0.0787 in, Temperature 73.4 - 131 °F	ISO 11359-2
Melting Point	260 °C	500 °F	ISO 11359-2
Deflection Temperature at 0.46 MPa (66 psi)	230 °C	446 °F	Unannealed; ISO 75-2/B
Deflection Temperature at 1.8 MPa (264 psi)	90.0 °C	194 °F	Unannealed; ISO 75-2/A
UL RTI, Electrical	130 °C @Thickness 0.400 mm	266 °F @Thickness 0.0157 in	UL 746
	130 °C @Thickness 0.710 mm	266 °F @Thickness 0.0280 in	UL 746
	130 °C	266 °F	UL 746

Thermal Properties	Metric	English	Comments
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	130 °C @Thickness 3.00 mm	266 °F @Thickness 0.118 in	UL 746
UL RTI, Mechanical with Impact	75.0 °C @Thickness 0.400 mm	167 °F @Thickness 0.0157 in	UL 746
	75.0 °C @Thickness 0.710 mm	167 °F @Thickness 0.0280 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	75.0 °C @Thickness 0.400 mm	167 °F @Thickness 0.0157 in	UL 746
	85.0 °C @Thickness 0.710 mm	185 °F @Thickness 0.0280 in	UL 746
	85.0 °C @Thickness 1.50 mm	185 °F @Thickness 0.0591 in	UL 746
	85.0 °C @Thickness 3.00 mm	185 °F @Thickness 0.118 in	UL 746
Flammability, UL94	V-2 @Thickness 0.400 mm	V-2 @Thickness 0.0157 in	
	V-2 @Thickness 0.710 mm	V-2 @Thickness 0.0280 in	
	V-2 @Thickness 1.50 mm	V-2 @Thickness 0.0591 in	
	V-2 @Thickness 3.00 mm	V-2 @Thickness 0.118 in	
Oxygen Index	26 %	26 %	ISO 4589-2
Glow Wire Test	700 °C @Thickness 0.710 mm	1290 °F @Thickness 0.0280 in	Ignition Temp; IEC 60695-2-12
	700 °C	1290 °F	

Thermal Properties	Metric	English	Comments
	@Thickness 1.50 mm	@Thickness 0.0591 in	Ignition Temp; IEC 60695-2-12
	700 °C @Thickness 3.00 mm	1290 °F @Thickness 0.118 in	Ignition Temp; IEC 60695-2-12
	800 °C @Thickness 0.710 mm	1470 °F @Thickness 0.0280 in	Flammability Index; IEC 60695-2-12
	800 °C @Thickness 1.50 mm	1470 °F @Thickness 0.0591 in	Flammability Index; IEC 60695-2-12
	930 °C @Thickness 3.00 mm	1710 °F @Thickness 0.118 in	Flammability Index; IEC 60695-2-12

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+10 ohm-cm @Thickness 0.750 mm	1.00e+10 ohm-cm @Thickness 0.0295 in	IEC 60093
Dielectric Strength	26.0 kV/mm @Thickness 1.00 mm	660 kV/in @Thickness 0.0394 in	IEC 60243
Arc Resistance	120 - 179 sec @Thickness 3.00 mm	120 - 179 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 0.710 mm	7.0 - 14 sec @Thickness 0.0280 in	UL 746
	15 - 29 sec @Thickness 1.50 mm	15 - 29 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 0.710 mm	>= 120 arcs @Thickness 0.0280 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

Electrical Properties	Metric	English	Comments
High Voltage Arc Tracking Rate, HVTR	ISO 5... 10.0 mm/min	... 0.394 in/min	UL 746

Processing Properties	Metric	English	Comments
Processing Temperature	285 - 300 °C	545 - 572 °F	Melt
Rear Barrel Temperature	260 - 280 °C	500 - 536 °F	
Middle Barrel Temperature	270 - 285 °C	518 - 545 °F	
Front Barrel Temperature	280 - 290 °C	536 - 554 °F	
Nozzle Temperature	280 - 300 °C	536 - 572 °F	
Mold Temperature	65.0 - 95.0 °C	149 - 203 °F	
Drying Temperature	<= 70.0 °C	<= 158 °F	

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