

Ascend Performance Materials VYDYNE® R543 Nylon, 43% Glass Reinforced, DAM

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, 40% Glass Fiber Filled

Material Notes:

Vydyne® R543 is general purpose, 43% glass-fiber reinforced PA66 resin. Available in natural, it is an injection-molding grade resin that is lubricated for machine fee, flow and mold release. Glass-reinforced Vydyne resins provide a higher heat distortion temperature, better resistance to creep, higher impact and better dimensional stability when compared with unreinforced PA66. This product has good chemical resistance to a broad range of chemicals, including many aliphatic and aromatic hydrocarbons found in most solvents, gasoline, hydraulic fluids, greases and machine oils. Vydyne R534 resin has tensile strength and modulus properties just below aluminum and zinc an can replace these metals in numerous applications due to an excellent balance of properties. Reduction in production costs, energy consumption and part weight are key advantages of Vydyne glass-reinforced PA66 resins over aluminum and/or zinc die-cat parts.

Availability:Asia PacificEuropeNorth AmericaAdditive: Lubricant Features:Gasoline ResistanceGood Chemical ResistanceGood Creep

ResistanceGood Dimensional StabilityGood FlowGood Impact ResistanceGood Mold ReleaseGrease ResistantHigh RigidityHigh

StrengthHigh Tensile Strength LubricatedOil ResistantSolvent ResistantUses:GearsHousingsLawn and Garden EquipmentPower/Other

ToolsAppearance: Natural ColorForms: PelletsProcessing Method: Injection Molding

Order this product through the following link:

http://www.lookpolymers.com/polymer_Ascend-Performance-Materials-VYDYNE-R543-Nylon-43-Glass-Reinforced-DAM.php

Physical Properties	Metric	English	Comments
Density	1.50 g/cc	0.0542 lb/in ³	ISO 1183
Water Absorption	0.60 %	0.60 %	24 hours; ISO 62
Moisture Absorption at Equilibrium	1.5 %	1.5 %	50% RH; ISO 62
Linear Mold Shrinkage, Flow	0.0040 cm/cm @Thickness 2.00 mm	0.0040 in/in @Thickness 0.0787 in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.0090 cm/cm @Thickness 2.00 mm	0.0090 in/in @Thickness 0.0787 in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	225 MPa	32600 psi	ISO 527-2
Elongation at Break	3.0 %	3.0 %	ISO 527-2
Tensile Modulus	14.8 GPa	2150 ksi	ISO 527-2
Flexural Strength	340 MPa	49300 psi	ISO 178
Flexural Modulus	12.5 GPa	1810 ksi	ISO 178
Poissons Ratio	0.40	0.40	ISO 527-2

Mechanical Properties	Metric	English	Comments
<i>Izod Impact, Notched (ISO)</i>	@Temperature -30.0 °C	@Temperature -22.0 °F	ISO 180
	13.0 kJ/m ²	6.19 ft-lb/in ²	ISO 180
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact Unnotched	8.70 J/cm ²	41.4 ft-lb/in ²	ISO 179
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	9.20 J/cm ²	43.8 ft-lb/in ²	ISO 179
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	1.30 J/cm ²	6.19 ft-lb/in ²	ISO 179
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	1.40 J/cm ²	6.66 ft-lb/in ²	ISO 179
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	1.60 μm/m-°C	0.889 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
Deflection Temperature at 0.46 MPa (66 psi)	260 °C	500 °F	ISO 75-2/B
Deflection Temperature at 1.8 MPa (264 psi)	252 °C	486 °F	ISO 75-2/A
UL RTI, Electrical	125 °C	257 °F	UL 746
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	125 °C	257 °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	
UL RTI, Mechanical with Impact	110 °C	230 °F	UL 746
	@Thickness 0.750 mm	@Thickness 0.0295 in	

Thermal Properties	Metric	English	Comments
	@Thickness 1.50 mm	@Thickness 0.0591 in	UL 746
	110 °C	230 °F	UL 746
	@Thickness 3.00 mm	@Thickness 0.118 in	UL 746
UL RTI, Mechanical without Impact	130 °C	266 °F	UL 746
	@Thickness 0.750 mm	@Thickness 0.0295 in	UL 746
	130 °C	266 °F	UL 746
	@Thickness 1.50 mm	@Thickness 0.0591 in	UL 746
	130 °C	266 °F	UL 746
	@Thickness 3.00 mm	@Thickness 0.118 in	UL 746
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	
Oxygen Index	25 %	25 %	ISO 4589-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+13 ohm-cm	1.00e+13 ohm-cm	IEC 60093
	@Thickness 0.750 mm	@Thickness 0.0295 in	
Dielectric Strength	22.0 kV/mm	559 kV/in	IEC 60243
	@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
	@Thickness 1.50 mm	@Thickness 0.0591 in	

Electrical Properties	Metric ^{4 sec}	English ^{sec}	Comments
	@Thickness 3.00 mm	@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	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	

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