

Vydyne® 88X-D

Polyamide 66/6 Copolymer

Ascend Performance Materials Operations LLC

Message:

Vydyne 88X-D is medium-viscosity PA66/6 random copolymer used for injection-molding applications. It provides benefits of high flow, fast cycles and good surface finish of the final parts. This copolymer is specifically designed to be used in application that requires high strength, good toughness, good surface lubricity and abrasion resistance.

Vydyne 88X-D is available in natural color, and it is the product of choice for low-yellowness-required applications. Vydyne 88X-D maintains the chemical resistance typical of PA66/6 to many chemicals, machine and motor oils, solvents and gasoline.

Typical Applications/End Uses:

Vydyne 88X-D has been used in many injection-molding applications such as cable ties/tie straps, terminal blocks, bearings, bushings, cams, electrical connectors and housings and many other hardware and general consumer-industrial parts.

General Information	
Additive	Lubricant
	Nucleating Agent
Features	Fast Molding Cycle
	General Purpose
	Good Mold Release
	Good Stiffness
	High Rigidity
	Lubricated
	Nucleated
Uses	Bearings
	Cams
	Connectors
	Fasteners
	General Purpose
	Housings
	Industrial Applications
Agency Ratings	ASTM D 4066 PA0131
	ASTM D 6779 PA0131
	FED L-P-410A
RoHS Compliance	RoHS Compliant
UL File Number	E70062
Appearance	Natural Color
Forms	Pellets
Processing Method	Injection Molding

Physical	Dry	Conditioned	Unit	Test Method
Density	1.14	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	1.8	--	%	
Flow : 23°C, 2.00 mm	1.8	--	%	
Water Absorption				ISO 62
23°C, 24 hr	1.4	--	%	
Equilibrium, 23°C, 50% RH	2.8	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	3400	1800	MPa	ISO 527-2
Tensile Stress				ISO 527-2
Yield, 23°C	86.0	60.0	MPa	
Break, 23°C	50.0	40.0	MPa	
Tensile Strain (Yield, 23°C)	5.0	10	%	ISO 527-2
Nominal Tensile Strain at Break (23°C)	27	> 50	%	ISO 527-2
Flexural Modulus (23°C)	2900	980	MPa	ISO 178
Flexural Strength (23°C)	90.0	30.0	MPa	ISO 178
Poisson's Ratio	0.40	--		ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	5.0	5.0	kJ/m ²	
23°C	6.0	30	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	No Break	No Break		
23°C	No Break	No Break		
Notched Izod Impact Strength				ISO 180
-30°C	5.0	5.0	kJ/m ²	
23°C	6.0	30	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	183	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	62.0	--	°C	ISO 75-2/A
Melting Temperature	253	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	1.0E-4	--	cm/cm/°C	
Transverse : 23 to 55°C, 2.00 mm	1.0E-4	--	cm/cm/°C	

RTI Elec				UL 746
0.400 mm	130	--	°C	
0.710 mm	130	--	°C	
1.50 mm	130	--	°C	
3.00 mm	130	--	°C	
RTI Imp				UL 746
0.400 mm	75.0	--	°C	
0.710 mm	75.0	--	°C	
1.50 mm	75.0	--	°C	
3.00 mm	75.0	--	°C	
RTI Str				UL 746
0.400 mm	75.0	--	°C	
0.710 mm	85.0	--	°C	
1.50 mm	85.0	--	°C	
3.00 mm	85.0	--	°C	
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity (0.750 mm)	1.0E+10	--	ohms·cm	IEC 60093
Dielectric Strength (1.00 mm)	26	--	kV/mm	IEC 60243
Arc Resistance (3.00 mm)	PLC 5	--		ASTM D495
Comparative Tracking Index (3.00 mm)	600	--	V	IEC 60112
High Amp Arc Ignition (HAI)				UL 746
0.710 mm	PLC 0	--		
1.50 mm	PLC 0	--		
3.00 mm	PLC 0	--		
High Voltage Arc Tracking Rate (HVTR)	PLC 0	--		UL 746
Hot-wire Ignition (HWI)				UL 746
0.710 mm	PLC 4	--		
1.50 mm	PLC 3	--		
3.00 mm	PLC 3	--		
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.400 mm	V-2	--		
0.710 mm	V-2	--		
1.50 mm	V-2	--		
3.00 mm	V-2	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.710 mm	800	--	°C	
1.50 mm	800	--	°C	

3.00 mm	930	--	°C	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.710 mm	700	--	°C	
1.50 mm	700	--	°C	
3.00 mm	700	--	°C	
Oxygen Index	28	--	%	ISO 4589-2
Injection	Dry	Unit		
Drying Temperature	< 70.0		°C	
Drying Time	1.0 to 3.0		hr	
Suggested Max Regrind	25		%	
Rear Temperature	250 to 270		°C	
Middle Temperature	260 to 275		°C	
Front Temperature	270 to 280		°C	
Nozzle Temperature	270 to 290		°C	
Processing (Melt) Temp	275 to 290		°C	
Mold Temperature	65.0 to 95.0		°C	

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