

Vydyne® 909

Polyamide 66/6 Copolymer

Ascend Performance Materials Operations LLC

Message:

Vydyne 909 is an halogenated, 25% glass-filled, flame-retardant PA66/6 copolymer with excellent strength and toughness. It is lubricated for machine feed and easy mold release and has an Underwriters Laboratories UL 94 flammability classification of V-0 at 0.4 mm (0.016") thick.

General Information	
UL YellowCard	E70062-249072
Filler / Reinforcement	Glass Fiber,25% Filler by Weight
Additive	Halogen
	Lubricant
Features	Flame Retardant
	Good Crack Resistance
	Good Mold Release
	Good Toughness
	Halogenated
	High Rigidity
	High Strength
	Ignition Resistant
	Lubricated
Uses	Appliances
	Automotive Electronics
	Bobbins
	Connectors
	Electrical Housing
	Electrical Parts
	Electrical/Electronic Applications
	Fasteners
	Industrial Applications
	Lighting Applications
	Living Hinges
	Printed Circuit Boards
	Switches
RoHS Compliance	RoHS Compliant
UL File Number	E70062
Appearance	Natural Color

Forms		Pellets		
Processing Method		Injection Molding		
Multi-Point Data		Isothermal Stress vs. Strain (ISO 11403-1)		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.47	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	1.0	--	%	
Flow : 23°C, 2.00 mm	0.40	--	%	
Water Absorption				ISO 62
23°C, 24 hr	0.70	--	%	
Equilibrium, 23°C, 50% RH	1.3	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	9100	7100	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	132	90.0	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.2	3.0	%	ISO 527-2
Flexural Modulus (23°C)	8300	5000	MPa	ISO 178
Flexural Strength (23°C)	193	140	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	9.5	--	kJ/m ²	
23°C	9.4	--	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	35	--	kJ/m ²	
23°C	40	--	kJ/m ²	
Notched Izod Impact Strength (23°C)	9.0	--	kJ/m ²	ISO 180
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	250	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	230	--	°C	ISO 75-2/A
Melting Temperature	250	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	2.0E-5	--	cm/cm/°C	
Transverse : 23 to 55°C, 2.00 mm	1.0E-4	--	cm/cm/°C	
RTI Elec				UL 746
0.400 mm	65.0	--	°C	
0.750 mm	130	--	°C	

1.50 mm	130	--	°C	
3.00 mm	130	--	°C	
RTI Imp				UL 746
0.400 mm	65.0	--	°C	
0.750 mm	65.0	--	°C	
1.50 mm	95.0	--	°C	
3.00 mm	95.0	--	°C	
RTI Str				UL 746
0.400 mm	65.0	--	°C	
0.750 mm	110	--	°C	
1.50 mm	110	--	°C	
3.00 mm	110	--	°C	
Electrical	Dry	Conditioned	Unit	Test Method
Arc Resistance (3.00 mm)	PLC 6	--		ASTM D495
Comparative Tracking Index (3.00 mm)	250 to 399	--	V	IEC 60112
High Amp Arc Ignition (HAI)				UL 746
0.750 mm	PLC 0	--		
1.50 mm	PLC 0	--		
High Voltage Arc Tracking Rate (HVTR) (3.00 mm)	PLC 3	--		UL 746
Hot-wire Ignition (HWI)				UL 746
0.750 mm	PLC 0	--		
1.50 mm	PLC 0	--		
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.400 mm	V-0	--		
0.750 mm	V-0	--		
1.50 mm	V-0	--		
3.00 mm	V-0	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.400 mm	960	--	°C	
0.750 mm	960	--	°C	
1.50 mm	960	--	°C	
3.00 mm	960	--	°C	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.400 mm	930	--	°C	
0.750 mm	750	--	°C	
1.50 mm	750	--	°C	
3.00 mm	800	--	°C	
Oxygen Index	32	--	%	ISO 4589-2

Injection	Dry	Unit
Drying Temperature	80.0	°C
Drying Time	4.0	hr
Suggested Max Regrind	25	%
Rear Temperature	240 to 270	°C
Middle Temperature	240 to 270	°C
Front Temperature	240 to 270	°C
Nozzle Temperature	240 to 270	°C
Processing (Melt) Temp	250 to 270	°C
Mold Temperature	65.0 to 95.0	°C

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