Vydyne® M344

Polyamide 66 / 6 copolymer

Ascend Performance Materials Operations LLC

product description

Vydyne M344is an halogenated, unfilled, flame-retardantPA66/6 copolymer designed with excellent strength and toughn ess. 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.

essential information

UL yellow card	E70062-249075			
additive	h alogen	lubricant		
characteristic	low density lubricating inflaming retarding	Good cracking resistance Off-mode performance is good fire resistance	h alogenate Elevated stretch rate	Good toughness ductility
use	Lighting Applicatio ns electrical appliance switch printed circuit board	Electrical / electronic applications Industrial application junctor	electric elements The hinge of the activity automotive electronics	Electrical shell fastener a reel for thread

UL file number E70062

Appearance of natural color

Form particles

Processing method, injection molding

Test method of unit system after drying adjustment of physical properties

Density was 1.27- -g / cm³ ISO 1183

The traction rate ISO294 – 4

Vertical flow direction: 23°C, 2.00 mm	1.8--	%	ISO 294-4	
Flow direction: 23°C,2.00mm 1.3- -% ISO 294-4				

Water absorption rate of ISO 62

23°C, 24 hr	0.80	--	%	ISO 62
Equilibrium, 23°C, 50% RH 1.9- -% ISO 62				

Test method test method after drying adjustment of mechanical properties

Tensile Modulus (23°C) 3500 2300 MPa ISO 527-2

Tensile stress (yield, 23°C) 60.0 40.0 MPa ISO 527-2

Tensile strain of ISO 527-2

Yield, 23°C 5.2 25% ISO 527-2

Break, 23°C 35 75% ISO527-2

Bending modulus (23°C) 3000 1400 MPa ISO 178

Bending strength (23°C) of 90.0 43.0 MPa ISO 178

A Poissons ratio of 0.40- -ISO 527-2

Units test method after drying adjustment of shock performance

The impact strength of the simple support beam gap is ISO179 / 1 eA

-30 °C	5.2	--	k J/m ²	IS O17 9/1 eA
23°C 5.5	--	k J/m²	IS O17 9/ 1eA	

No gnotch impact strength ISO179 / 1 eU

-30°C without break- -ISO179 / 1 eU

23°C without break- -ISO179 / 1 eU

Impact strength of suspension beam gap (23°C) 5.0- -kJ / m² ISO 180

Units test method after thermal performance drying adjustment

distortion temperature

0.45 MPa, not annealing	186	--	°C	ISO 75-2/B
1.8 MPa, with no annealing	65.0	--	°C	ISO 75-2/A
Dissolution melting temperature (DSC)	250	--	°C	ISO 3146
The linear thermal expansion coefficient				ISO11359-2
Flow:23to55°C,2.00mm	1.0E-4	--	cm/cm/°C	ISO11359-2
Horizontal: 23 to 55°C, 2.00 mm 1.0E-4- -cm / cm / °C IS O11359-2				

RTI Elec				UL 746
0.400 mm	65.0	--	°C	UL 746
0.750 mm	130	--	°C	UL 746
1.50 mm	130	--	°C	UL 746
3.00 mm	130	--	°C	UL 746
RTI Imp				UL 746
0.400 mm	65.0	--	°C	UL 746
0.750 mm	65.0	--	°C	UL 746
1.50 mm	95.0	--	°C	UL 746
3.00 mm	95.0	--	°C	UL 746
RTI				UL 746
0.400 mm	65.0	--	°C	UL 746
0.750 mm	95.0	--	°C	UL 746
1.50 mm	95.0	--	°C	UL 746
3.00 mm	95.0	--	°C	UL 746

behaviour of electricity	dry	After the regulation	system of units	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)	PLC6	--		ASTM D495
Leakage start mark index (3.00 mm)	From 400 to 599	--	V	IEC 60112
High arc-arc combustion index (HAI)				UL 746
0.750 mm	PLC0	--		UL 746
1.50 mm	PLC0	--		UL 746
3.00 mm	PLC0	--		UL 746
High voltage arc onset rate (HVTR)	PLC1	--		UL 746
Hot wire ignition (HWI)				UL 746
0.750	PLC0	--		UL 746
mm 1.50	PLC0	--		UL 746
mm 3.00 mm	PLC0	--		UL 746

flammability	dry	After the regulation	system of units	test method
UL flame retardant grade				UL94
0.400 mm	V-0	--		UL94
0.750 mm	V-0	--		UL94
1.50 mm	V-0	--		UL94
3.00 mm	V-0	--		UL94
Burning wire flammable index				IEC 60695-2-12
0.750 mm	960	--	°C	IEC 60695-2-12
1.50 mm	960	--	°C	IEC 60695-2-12
3.00 mm	960	--	°C	IEC 60695-2-12
Hot-filament ignition temperature				IEC 60695-2-13
0.750 mm	700	--	°C	IEC 60695-2-13
1.50 mm	700	--	°C	IEC 60695-2-13
3.00 mm	725	--	°C	IEC 60695-2-13
Extreme oxygen index	30	--	%	ISO 4589-2

injection	dry	system of units
drying temperature	80.0	°C
drying time	4.0	hr
Recommended maximum preparation ratio	25	%
The rear temperature of the cylinder	From 240 to 270	°C
Temperature in the middle of the cylinder	From 240 to 270	°C
Temperature at the front of the cylinder	From 240 to 270	°C
The nozzle temperature	From 240 to 270	°C
Processing (melt) temperature	From 250 to 270	°C
die temperature	From 65.0 to 95.0	°C