

Product Texts

Vydyne 21SPM is a general-purpose, unfilled, enhanced crystallization temperature PA66 resin with an alternative lubricant. Designed principally to decrease cycle time for injection-molding fabrication, this product offers a combination of engineering properties characterized by high strength; rigidity; good toughness; high melt point; good surface lubricity; abrasion resistance; and resistance to many chemicals, machine and motor oils, solvents and gasoline.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	2.0 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	2.0 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	3300 / 1600	MPa	ISO 527
^[C] Yield stress	88 / 55	MPa	ISO 527
^[C] Yield strain	5 / 20	%	ISO 527
Flexural modulus, 23°C	3300 / 1050	MPa	ISO 178
Flexural strength	105 / 30	MPa	ISO 178
^[C] Charpy impact strength, +23°C	N / N	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	N / N	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	6 / 23	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	5 / 7	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C	6 / 23	kJ/m ²	ISO 180/1A
Izod notched impact strength	5 / 7	kJ/m ²	ISO 180/1A
Temperature	-30	°C	-

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	260 / *	°C	ISO 11357-1/-3
^[C] Temp. of deflection under load, 1.80 MPa	72 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	210 / *	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	100 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	100 / *	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	-
^[C] Burning Behav. at thickness h	V-2 / *	class	IEC 60695-11-10
Thickness tested	0.4 / *	mm	-
^[C] Oxygen index	26 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (1)	0.4	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (2)	0.71	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (3)	1.5	mm	-
Glow Wire Ignition Temperature (GWIT)	825	°C	IEC 60695-2-13
GWIT - thickness tested (1)	0.4	mm	-
Glow Wire Ignition Temperature (GWIT)	850	°C	IEC 60695-2-13
GWIT - thickness tested (2)	0.71	mm	-
Glow Wire Ignition Temperature (GWIT)	850	°C	IEC 60695-2-13
GWIT - thickness tested (3)	1.5	mm	-
ASTM Data			
UL 94 Flame rating	V-2	-	UL 94
Thickness tested	0.4	mm	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Volume resistivity	1E11 / -	Ohm*m	IEC 62631-3-1
^[C] Electric strength	26 / -	kV/mm	IEC 60243-1
^[C] Comparative tracking index	600 / -	-	IEC 60112
ASTM Data			
Arc Resistance	150 / -	s	ASTM D 495

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	1.2 / *	%	Sim. to ISO 62
^[C] Humidity absorption	2.4 / *	%	Sim. to ISO 62
^[C] Density	1140 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	70	°C	-
Pre-drying - Time	1 - 3	h	-
Melt temperature	285 - 300	°C	-
Mold temperature	65 - 95	°C	-
Zone 1	260 - 280	°C	-
Zone 2	270 - 285	°C	-
Zone 3	280 - 290	°C	-
Nozzle temperature	280 - 300	°C	-

Characteristics

Processing

Injection Molding

Delivery form

Pellets, Natural Color

Additives

Lubricants, Release agent

Features

Color Stability

Chemical Resistance

General Chemical Resistance, Solvent Resistance, Oil Resistance

Certifications

Food contact, Food approval 10/2011, Food approval FDA 21 CFR

Applications

Electrical and Electronical, General Purpose

Regional Availability

North America, Europe, Asia Pacific