

Product Texts

Vydyne 47H BK0644 is a high performance, medium impact modified, heat stabilized PA66 with excellent UV stability and outstanding processing characteristics. This product currently has an UL746C "f1" rating making it suitable for a variety of outdoor applications.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	1.8 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.6 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	2700 / 1000	MPa	ISO 527
^[C] Yield stress	61 / 38	MPa	ISO 527
^[C] Yield strain	5.6 / 41	%	ISO 527
Flexural modulus, 23°C	2300 / 780	MPa	ISO 178
Flexural strength	70 / 24	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	16 / 62	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	11 / 24	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C	18 / 44	kJ/m ²	ISO 180/1A
Izod notched impact strength	16 / 24	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	63 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	185 / *	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	110 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	140 / *	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	-
^[C] Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	-
Glow Wire Flammability Index (GWFI)	700	°C	IEC 60695-2-12
GWFI - thickness tested (1)	0.75	mm	-
Glow Wire Flammability Index (GWFI)	775	°C	IEC 60695-2-12
GWFI - thickness tested (2)	1.5	mm	-
Glow Wire Flammability Index (GWFI)	700	°C	IEC 60695-2-12
GWFI - thickness tested (3)	3	mm	-
Glow Wire Ignition Temperature (GWIT)	725	°C	IEC 60695-2-13
GWIT - thickness tested (1)	0.75	mm	-
Glow Wire Ignition Temperature (GWIT)	800	°C	IEC 60695-2-13
GWIT - thickness tested (2)	1.5	mm	-
Glow Wire Ignition Temperature (GWIT)	725	°C	IEC 60695-2-13
GWIT - thickness tested (3)	3	mm	-

ASTM Data

UL 94 Flame rating	HB	-	UL 94
Thickness tested	0.75	mm	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Volume resistivity	1E9 / -	Ohm*m	IEC 62631-3-1
^[C] Electric strength	12 / -	kV/mm	IEC 60243-1
^[C] Comparative tracking index	525 / -	-	IEC 60112

ASTM Data

Arc Resistance	90 / -	s	ASTM D 495
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[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	1.2 / *	%	Sim. to ISO 62
[C] Humidity absorption	2.3 / *	%	Sim. to ISO 62
[C] Density	1100 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	4	h	-
Melt temperature	285 - 305	°C	-
Mold temperature	65 - 95	°C	-
Zone 1	280 - 310	°C	-
Zone 2	280 - 310	°C	-
Zone 3	280 - 310	°C	-
Nozzle temperature	280 - 310	°C	-

Characteristics

Processing

Injection Molding

Delivery form

Pellets, Black

Special Characteristics

High impact or impact modified, U.V. stabilized or stable to weather, Heat stabilized or stable to heat

Chemical Resistance

General Chemical Resistance, Solvent Resistance, Oil Resistance

Applications

Automotive, Electrical and Electronical, General Purpose

Regional Availability

North America, Europe, Asia Pacific