

Product Texts

Vydyne R535J BK0678 is a black, 35% glass filled, high flow, PA66 that contains an electrically neutral heat stabilizer. It is specifically designed for electrical applications requiring high dielectric strength, low conductivity, corrosion resistance, and laser markability.

Processing/Physical Characteristics

	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.4 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.9 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties

	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	11600 / -	MPa	ISO 527
^[C] Stress at break	209 / -	MPa	ISO 527
^[C] Strain at break	2.8 / -	%	ISO 527
Flexural modulus, 23°C	10500 / -	MPa	ISO 178
Flexural strength	300 / -	MPa	ISO 178
^[C] Charpy impact strength, +23°C	79 / -	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	68 / -	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	12 / -	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	11 / -	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C	12 / -	kJ/m ²	ISO 180/1A
Izod notched impact strength	11 / -	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	251 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	261 / *	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	21 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	106 / *	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)	750	°C	IEC 60695-2-12
GWFI - thickness tested (1)	0.75	mm	-
Glow Wire Flammability Index (GWFI)	725	°C	IEC 60695-2-12
GWFI - thickness tested (2)	1.5	mm	-
Glow Wire Flammability Index (GWFI)	800	°C	IEC 60695-2-12
GWFI - thickness tested (3)	3	mm	-
Glow Wire Ignition Temperature (GWIT)	775	°C	IEC 60695-2-13
GWIT - thickness tested (1)	0.75	mm	-
Glow Wire Ignition Temperature (GWIT)	725	°C	IEC 60695-2-13
GWIT - thickness tested (2)	1.5	mm	-
Glow Wire Ignition Temperature (GWIT)	750	°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	1E12 / -	Ohm*m	IEC 62631-3-1
^[C] Electric strength	27 / 20	kV/mm	IEC 60243-1
^[C] Comparative tracking index	600 / -	-	IEC 60112

ASTM Data

Arc Resistance	150 / -	s	ASTM D 495
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[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	0.8 / *	%	Sim. to ISO 62
[C] Humidity absorption	1.6 / *	%	Sim. to ISO 62
[C] Density	1410 / -	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

Additives

Lubricants, Release agent

Special Characteristics

Heat stabilized or stable to heat

Features

Laser Markable

Chemical Resistance

General Chemical Resistance

Applications

Automotive, Electrical and Electronical

Regional Availability

North America, Europe, Asia Pacific