

Vydyne® 66B

polyamide 66



Vydyne 66B is a high-viscosity PA66 resin suitable for injection-molding and extrusion applications. It is available in natural color only. 66B resin offers high strength, rigidity and toughness over a broad range of demanding applications and good fluid resistance to a wide variety of chemicals, solvents and oils.

General

Regional Availability	• North America	• Europe	• Asia Pacific
Features	• Chemical Resistant • Good Toughness • High Rigidity • Kosher Approved	• Gasoline Resistant • High Melt Strength • High Strength • Oil Resistant	• General Purpose • High Molecular Weight • High Viscosity • Solvent Resistant
Agency Rating	• ASTM, D6779 PA0114 • FDA, 21 CFR 177.1500 • NSF, STD-61 • EU, 2023/2006	• EC, 1935/2004 • FED, L-P-410A • USDA, 3A • MIL, M-20693B	• EU, 10/2011 • NSF, STD-51 • ASTM, D4066 PA0114
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Other Extrusion		

Physical

	dry	cond.	Unit	Test Standard
Density	1.14	-	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	2.0	*	%	
Flow : 23°C, 2.00 mm	2.1	*	%	
Water Absorption				ISO 62
23°C, 24 hr	8.5	*	%	
Equilibrium, 23°C, 50% RH	2.5	*	%	

Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	2800	1800	MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	85	55	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	55	70	MPa	ISO 527-2
Tensile Strain (Yield, 23°C)	5	20	%	ISO 527-2
Tensile Strain (Break, 23°C)	25	150	%	ISO 527-2
Flexural Modulus (23°C)	3100	900	MPa	ISO 178
Flexural Strength (23°C)	90	30	MPa	ISO 178
Poisson's Ratio (23°C)	0.42	-		ISO 527-2

Vydyne® 66B

polyamide 66



Impact	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	6	23	kJ/m²	
-30°C	6	6	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	N	N	kJ/m²	
-30°C	N	N	kJ/m²	
Notched Izod Impact Strength				ISO 180/1A
+23°C	6	25	kJ/m²	
-30°C	6	6	kJ/m²	

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	70	-	°C	
0.45 MPa, Unannealed	195	-	°C	
Melting Temperature	260	*	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	100	*	E-6/K	
Transverse : 23 to 55°C, 2.00 mm	100	*	E-6/K	
RTI Elec				UL 746
0.750 mm	130		°C	
1.50 mm	130		°C	
3.00 mm	130		°C	
RTI Imp				UL 746
0.750 mm	75		°C	
1.50mm	75		°C	
3.00 mm	75		°C	
RTI Str				UL 746
0.750 mm	85		°C	
1.50 mm	85		°C	
3.00 mm	85		°C	

Electrical	dry	cond.	Unit	Test Standard
Dielectric Strength (1.00 mm)	26	-	kV/mm	IEC 60243
Arc Resistance (3.00 mm)	5		-	ASTM D 495
Comparative Tracking Index (3.00 mm)	600		V	IEC 60112
High Amp Arc Ignition (HAI)				UL 746
0.750 mm	PLC 0		-	
1.50 mm	PLC 0		-	

Vydyne® 66B

polyamide 66



3.00 mm	PLC 0	-	
High Voltage Arc Tracking Rate (HVTR), 3.00 mm	PLC 0	-	UL 746
Hot-wire Ignition (HWI)			UL 746
0.750 mm	PLC 4	-	
1.50 mm	PLC 3	-	
3.00 mm	PLC 2	-	

Flammability	dry	cond.	Unit	Test Standard
Flammability				UL 94
0.750 mm	HB		-	
1.50 mm	HB		-	
3.00 mm	V-2		-	
Glow Wire Flammability Index				IEC 60695-2-12
0.750 mm	850		°C	
1.50 mm	850		°C	
3.00 mm	960		°C	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.750 mm	700		°C	
1.50 mm	700		°C	
3.00 mm	700		°C	
Oxygen index	28	*	%	EN ISO 4589-2

Extrusion	Value	Unit
Cylinder Zone 1 Temp	250 - 295	°C
Cylinder Zone 2 Temp	250 - 295	°C
Cylinder Zone 3 Temp	250 - 295	°C
Cylinder Zone 4 Temp	250 - 295	°C
Cylinder Zone 5 Temp	250 - 295	°C
Melt temperature	270 - 295	°C
Die temperature	270 - 295	°C

