

Vydyne® 41H BK0677

polyamide 66



Vydyne 41H BK0677 is general-purpose, high impact-modified, heat stabilized PA66 resin. The product offers improved resistance to thermal degradation.

41H BK0677 is recognized for all the processing and property advantages inherent to PA66 with the addition of improved impact strength. This resin offers a well balanced combination of engineering properties characterized by high melt point, good surface lubricity, abrasion resistance and resistance to many chemicals, machine and motor oils, solvents and gasoline.

General

Regional Availability	• North America	• Europe	• Asia Pacific
Additive	• Heat Stabilizer		
Features	• Abrasion Resistance • High Viscosity	• Heat Stabilized • Ultra High Impact Resistance	• High Melt Strength
Agency Rating	• ASTM, D4066 PA0181	• ASTM, D6779 PA0181	
UL File Number	• E70062		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Other Extrusion		

Physical

	dry	cond.	Unit	Test Standard
Density	1.07	-	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	1.6	*	%	
Flow : 23°C, 2.00 mm	1.8	*	%	

Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	1790	-	MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	49	-	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	49	-	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	53	-	%	ISO 527-2
Flexural Modulus (23°C)	1800	-	MPa	ISO 178
Flexural Strength (23°C)	55	-	MPa	ISO 178

Impact

	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	104	-	kJ/m ²	
-30°C	83	-	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	N	-	kJ/m ²	

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-30°C	N	-	kJ/m²	
Notched Izod Impact Strength				ISO 180/1A
+23°C	85	-	kJ/m²	
-30°C	41	-	kJ/m²	

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature, 1.80 MPa, Unannealed	56	-	°C	ISO 75-2/A
Melting Temperature	262	*	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	150	*	E-6/K	
Transverse : 23 to 55°C, 2.00 mm	118	*	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	115		°C	
1.50 mm	120		°C	
3.00 mm	125		°C	

Electrical	dry	cond.	Unit	Test Standard
Volume Resistivity (1.00 mm)	1E8	-	Ohm*m	IEC 60093
Dielectric Strength (1.00 mm)	14	-	kV/mm	IEC 60243
Arc Resistance (3.00 mm)	2		-	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		-	
3.00 mm	PLC 0		-	
High Voltage Arc Tracking Rate (HVTR), 3.00 mm	PLC 2		-	UL 746
Hot-wire Ignition (HWI)				UL 746
0.750 mm	PLC 4		-	
1.50 mm	PLC 4		-	
3.00 mm	PLC 3		-	

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Flammability	Value	Unit	Test Standard
Burning Rate, 2.00 mm	12	mm/min	ISO 3795
Flammability			UL 94
0.750 mm	HB	-	
1.50 mm	HB	-	
3.00 mm	HB	-	
Glow Wire Flammability Index			IEC 60695-2-12
0.750 mm	725	°C	
1.50 mm	725	°C	
3.00 mm	675	°C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.750 mm	750	°C	
1.50 mm	750	°C	
3.00 mm	700	°C	
Injection	Value	Unit	
Drying Temperature	80	°C	
Drying Time	4	h	
Rear Temperature	280 - 310	°C	
Middle Temperature	280 - 310	°C	
Front Temperature	280 - 310	°C	
Nozzle temperature	280 - 310	°C	
Processing (Melt) Temperature	285 - 305	°C	
Mold Temperature	65 - 95	°C	
Extrusion	Value	Unit	
Cylinder Zone 1 Temp	280 - 310	°C	
Cylinder Zone 2 Temp	280 - 310	°C	
Cylinder Zone 3 Temp	280 - 310	°C	
Melt temperature	285 - 305	°C	
Die temperature	280 - 310	°C	

