

Vydyne® 41H BK0677 polyamide 66



Vydyne 41H BK0677 is an extrusion grade, impact-modified material aimed at fulfilling the specification requirements for cable-jacketing applications. The combination of its high-viscosity

feedstock and impact modifier loading level imparts the toughness, abrasion resistance, low-temperature impact resilience and elongation properties needed for cable-jacketing applications.

General	
Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • North America
Additive	• Carbon Black • EBS • Copper Stabilizer • Impact Modifier
Features	• Abrasion Resistant • High Viscosity • Good Melt Strength • Ultra High Impact Resistance
Uses	• Automotive Applications • Cable Jacketing • Jacketing • Automotive Under the Hood • Flexible Jacketing
Agency Ratings	• ASTM D 4066 PA0181 • ASTM D 6779 PA0181
Automotive Specifications	• CHRYSLER MS-DB-41 CPN 2565 • GM GMW16447P-PA66-T3 • GM GMW17192
Appearance	• Black
Forms	• Pellets
Processing Method	• Extrusion

Physical	Dry	Conditioned	Unit	Test Method
Density	1.07	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 2.00 mm	1.6	--	%	
Flow : 2.00 mm	1.8	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	1790	--	MPa	ISO 527-2
Tensile Stress				ISO 527-2
Yield, 23°C	49.0	--	MPa	
Break, 23°C	49.0	--	MPa	
Tensile Strain (Break, 23°C)	53	--	%	ISO 527-2
Flexural Modulus (23°C)	1800	--	MPa	ISO 178
Flexural Stress (23°C)	55.0	--	MPa	ISO 178

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-30°C	83	--	kJ/m ²	
23°C	100	--	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179
-30°C	No Break	--		
23°C	No Break	--		
Notched Izod Impact Strength				ISO 180
-40°C	41	--	kJ/m ²	
23°C	85	--	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/A
1.8 MPa, Unannealed	56.0	--	°C	
Melting Temperature	262	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	1.5E-4	--	cm/cm/°C	
Transverse : 23 to 55°C, 2.00 mm	1.2E-4	--	cm/cm/°C	
RTI Elec				UL 746
0.75 mm	130	--	°C	
1.5 mm	130	--	°C	
3.0 mm	130	--	°C	
RTI Imp				UL 746
0.75 mm	75.0	--	°C	
1.5 mm	75.0	--	°C	
3.0 mm	75.0	--	°C	
RTI Str				UL 746
0.75 mm	115	--	°C	
1.5 mm	120	--	°C	
3.0 mm	125	--	°C	

Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity (0.750 mm)	1.0E+10	--	ohms-cm	IEC 60093
Dielectric Strength (1.00 mm)	14	--	kV/mm	IEC 60243
Arc Resistance (3.00 mm)	PLC 2	--		ASTM D495
Comparative Tracking Index (3.00 mm)	600	--	V	IEC 60112
High Amp Arc Ignition (HAI)				UL 746
0.75 mm	PLC 0	--		
1.5 mm	PLC 0	--		
3.0 mm	PLC 0	--		
High Voltage Arc Tracking Rate (HVTR)	PLC 2	--		UL 746
Hot-wire Ignition (HWI)				UL 746
0.75 mm	PLC 4	--		
1.5 mm	PLC 4	--		
3.0 mm	PLC 3	--		
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate				ISO 3795
2.00 mm	12	--	mm/min	
3.00 mm	7.9	--	mm/min	
Flame Rating				UL 94
0.75 mm	HB	--		
1.5 mm	HB	--		
3.0 mm	HB	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.75 mm	725	--	°C	
1.5 mm	725	--	°C	
3.0 mm	675	--	°C	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.75 mm	750	--	°C	
1.5 mm	750	--	°C	
3.0 mm	700	--	°C	

Injection	Dry Unit
Drying Temperature	80 °C
Drying Time	4.0 hr
Suggested Max Regrind	25 %
Rear Temperature	280 to 310 °C
Middle Temperature	280 to 310 °C
Front Temperature	280 to 310 °C
Nozzle Temperature	280 to 310 °C
Processing (Melt) Temp	285 to 305 °C
Mold Temperature	65 to 95 °C

Notes

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