

Vydyne® B BK X146 EM1 LT K1

 Ascend Performance Materials Operations LLC - *Polyamide 6*
General Information
Product Description

Vydyne B BK X146 EM1 LT K1 is a general-purpose, impact-modified PA6 resin. Available in black, it is inorganic heat-stabilized for improved resistance to high temperatures. It is lubricated for machine feed and easy mold release and shows an improved impact resistance also at low temperatures.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Additive	• Heat Stabilizer	• Impact Modifier	• Lubricant
Features	• Abrasion Resistant	• Good Toughness	• Low Temperature Impact Resistance
	• Chemical Resistant	• Heat Aging Resistant	• Lubricated
	• Gasoline Resistant	• Heat Stabilized	• Oil Resistant
	• Good Impact Resistance	• High Elongation	• Solvent Resistant
	• Good Mold Release	• Impact Modified	
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID	• PA6-I		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.12	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	1.8	--	%	
Flow : 73°F, 0.0787 in	1.4	--	%	
Water Absorption (Equilibrium, 73°F, 50% RH)	2.6	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	290000	174000	psi	ISO 527-1
Tensile Stress (Yield, 73°F)	8700	5080	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	5.5	7.0	%	ISO 527-2
Tensile Strain (Break, 73°F)	45	55	%	ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Notched Izod Impact Strength				ISO 180/1A
-22°F	4.3	--	ft·lb/in ²	
73°F	5.7	--	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	302	--	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	140	--	°F	ISO 75-2/A
Melting Temperature	432	--	°F	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Comparative Tracking Index (0.118 in)	450	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.030 in	HB	--		
0.06 in	HB	--		

Processing Information

Injection	Dry Unit
Drying Temperature	176 to 194 °F
Drying Time	> 3.0 hr



Rear Temperature	446 to 518 °F
Middle Temperature	446 to 518 °F
Front Temperature	446 to 518 °F
Nozzle Temperature	446 to 518 °F
Processing (Melt) Temp	446 to 518 °F
Mold Temperature	176 to 194 °F

Notes

¹ Typical properties: these are not to be construed as specifications.

