

Vydyne® 65B

Polyamide 66

Ascend Performance Materials Operations LLC

Message:

Vydyne 65B is a medium-viscosity PA66 resin suitable for injection-molding, extrusion and compounding applications. It is available in natural color only. Vydyne 65B 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.

Typical Applications/End Uses:

Typical uses include packaging films, monofilaments, bristles, rods, tubing and sheet.

General Information	
Features	Rigidity, high High strength Solvent resistance Good chemical resistance Oil resistance Good toughness General Medium and high viscosity
Uses	Bar monofilament Industrial application Pipe fittings Sheet Profile
Agency Ratings	ASTM D 4066 PA0113 ASTM D 6779 PA0113 FDA 21 CFR 177.1500 FED L-P-410A MIL M-20693B
RoHS Compliance	RoHS compliance
Appearance	Natural color
Forms	Particle
Processing Method	Extrusion Injection molding

Physical	Dry	Conditioned	Unit	Test Method
Density	1.14	--	g/cm ³	ISO 1183

Molding Shrinkage				ISO 294-4
Vertical flow direction: 23°C, 2.00mm	1.9	--	%	ISO 294-4
Flow direction: 23°C, 2.00mm	2.0	--	%	ISO 294-4
Water Absorption				ISO 62
Saturated, 23°C	8.5	--	%	ISO 62
Equilibrium, 23°C, 50% RH	2.5	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	3100	1500	MPa	ISO 527-2
Tensile Stress				ISO 527-2
Yield, 23°C	83.0	55.0	MPa	ISO 527-2
Fracture, 23°C	50.0	65.0	MPa	ISO 527-2
Tensile Strain (Yield, 23°C)	5.5	20	%	ISO 527-2
Nominal Tensile Strain at Break (23°C)	> 25	> 200	%	ISO 527-2
Flexural Modulus (23°C)	2800	700	MPa	ISO 178
Flexural Strength (23°C)	80.0	20.0	MPa	ISO 178
Poisson's Ratio	0.40	--		ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	6.0	7.0	kJ/m ²	ISO 179/1eA
23°C	6.0	40	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	No Break	No Break		ISO 179/1eU
23°C	No Break	No Break		ISO 179/1eU
Notched Izod Impact				ISO 180
-30°C	6.0	7.0	kJ/m ²	ISO 180
23°C	6.0	40	kJ/m ²	ISO 180
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	195	--	°C	ISO 75-2/B
1.8 MPa, not annealed	65.0	--	°C	ISO 75-2/A
Melting Temperature	260	--	°C	ISO 11357-3
Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 55°C, 2.00mm	1.0E-4	--	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C, 2.00mm	1.0E-4	--	cm/cm/°C	ISO 11359-2
Extrusion	Dry	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

Extrusion instructions

Recommended Extrusion Conditions: Melt Point: 260°C Melt Pressure: 3 to 17 MPa Blow Film Bath Temperature: 20°C to 80°C Chill Roll Temperature (Cast Film): 20°C to 80°C Screw Design: General Purpose or Barrier

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