Vydyne® 65B

Ascend Performance Materials Operations LLC - Polyamide 66

Monday, November 4, 2019

General Information

Product Description

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.

General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Features	• Chemical Resistant • General Purpose • Good Toughness	• High Rigidity • High Strength • Medium-high Viscosity	• Oil Resistant • Solvent Resistant
Uses	• Industrial Applications • Monofilaments	• Profiles • Rods	• Sheet • Tubing
Agency Ratings	• ASTM D4066 PA0113 • ASTM D6779 PA0113 • EC 1935/2004	• EU 10/2011 • EU 2023/2006 • FDA 21 CFR 177.1500	• FED L-P-410A • MIL M-20693B
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion		

ASTM & ISO Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.14	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	1.9	--	%	
Flow : 73°F, 0.0787 in	2.0	--	%	
Water Absorption				ISO 62
Saturation, 73°F	8.5	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 50% RH	2.5	--	%	
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (73°F)	450000	218000	psi	ISO 527-2
Tensile Stress (Yield, 73°F)	12000	7980	psi	ISO 527-2
Tensile Stress (Break, 73°F)	7250	9430	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	5.5	20	%	ISO 527-2
Nominal Tensile Strain at Break				ISO 527-2
73°F	> 25	> 200	%	
Flexural Modulus (73°F)	406000	102000	psi	ISO 178
Flexural Strength (73°F)	11600	2900	psi	ISO 178
Poisson's Ratio	0.40	--		ISO 527-2

Vydyne® 65B
Ascend Performance Materials Operations LLC - Polyamide 66

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	2.9	3.3	ft·lb/in²	
73°F	2.9	19	ft·lb/in²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	No Break	No Break		
73°F	No Break	No Break		
Notched Izod Impact Strength				ISO 180
-22°F	2.9	3.3	ft·lb/in²	
73°F	2.9	19	ft·lb/in²	

Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/B
66 psi, Unannealed	383	--	°F	
Heat Deflection Temperature				ISO 75-2/A
264 psi, Unannealed	149	--	°F	
Melting Temperature	500	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	5.6E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	5.6E-5	--	in/in/°F	ISO 11359-2

Processing Information

Extrusion	Dry	Unit
Cylinder Zone 1 Temp.	482 to 563	°F
Cylinder Zone 2 Temp.	482 to 563	°F
Cylinder Zone 3 Temp.	482 to 563	°F
Cylinder Zone 4 Temp.	482 to 563	°F
Cylinder Zone 5 Temp.	482 to 563	°F
Melt Temperature	518 to 563	°F
Die Temperature	518 to 563	°F

Extrusion Notes

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

Notes

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