

# Vydyne® 63A polyamide 66



Vydyne 63A is a medium-viscosity PA66 resin suitable for injection-molding, extrusion and compounding applications. It is available in natural color only. Vydyne 63A 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 Melt Strength	• Good Toughness • High Rigidity • High Strength	• Medium Viscosity • Oil Resistant • Solvent Resistant	
Uses	• Cast Film • Film • Food Packaging	• Industrial Applications • Monofilaments • Rods	• Sheet • Tubing	
Agency Ratings	• ASTM D4066 PA0112 • ASTM D6779 PA0112	• EC 1935/2004 • EU 10/2011	• EU 2023/2006 • FDA 21 CFR 177.1500	
RoHS Compliance	• RoHS Compliant			
Appearance	• Natural Color			
Forms	• Pellets			
Processing Method	• Extrusion			

Physical	Dry	Conditioned	Unit	Test Method
Density	1.14	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	1.9	--	%	
Flow : 23°C, 2.00 mm	1.9	--	%	
Water Absorption				ISO 62
Saturation, 23°C	8.5	--	%	
Equilibrium, 23°C, 50% RH	2.5	--	%	

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	3200	1700	MPa	ISO 527-2
Tensile Stress				ISO 527-2
Yield, 23°C	85.0	55.0	MPa	
Break, 23°C	55.0	65.0	MPa	
Tensile Strain (Yield, 23°C)	5.0	20	%	ISO 527-2
Nominal Tensile Strain at Break (23°C)	> 25	> 200	%	ISO 527-2
Flexural Modulus (23°C)	2500	700	MPa	ISO 178
Flexural Stress (23°C)	70.0	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	5.0	9.0	kJ/m <sup>2</sup>	
23°C	6.0	25	kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	No Break	No Break		
23°C	No Break	No Break		
Notched Izod Impact Strength				ISO 180
-30°C	5.0	9.0	kJ/m <sup>2</sup>	
23°C	6.0	25	kJ/m <sup>2</sup>	

Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	190	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	68.0	--	°C	ISO 75-2/A
Melting Temperature	260	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C, 2.00 mm	1.0E-4	--	cm/cm/°C	
Transverse : 23 to 55°C, 2.00 mm	1.0E-4	--	cm/cm/°C	

Extrusion	Dry Unit
Cylinder Zone 1 Temp.	250 to 295 °C
Cylinder Zone 2 Temp.	250 to 295 °C
Cylinder Zone 3 Temp.	250 to 295 °C
Cylinder Zone 4 Temp.	250 to 295 °C
Cylinder Zone 5 Temp.	250 to 295 °C
Melt Temperature	270 to 295 °C
Die Temperature	270 to 295 °C

### 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**

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

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