Vydyne® 65A
polyamide 66

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

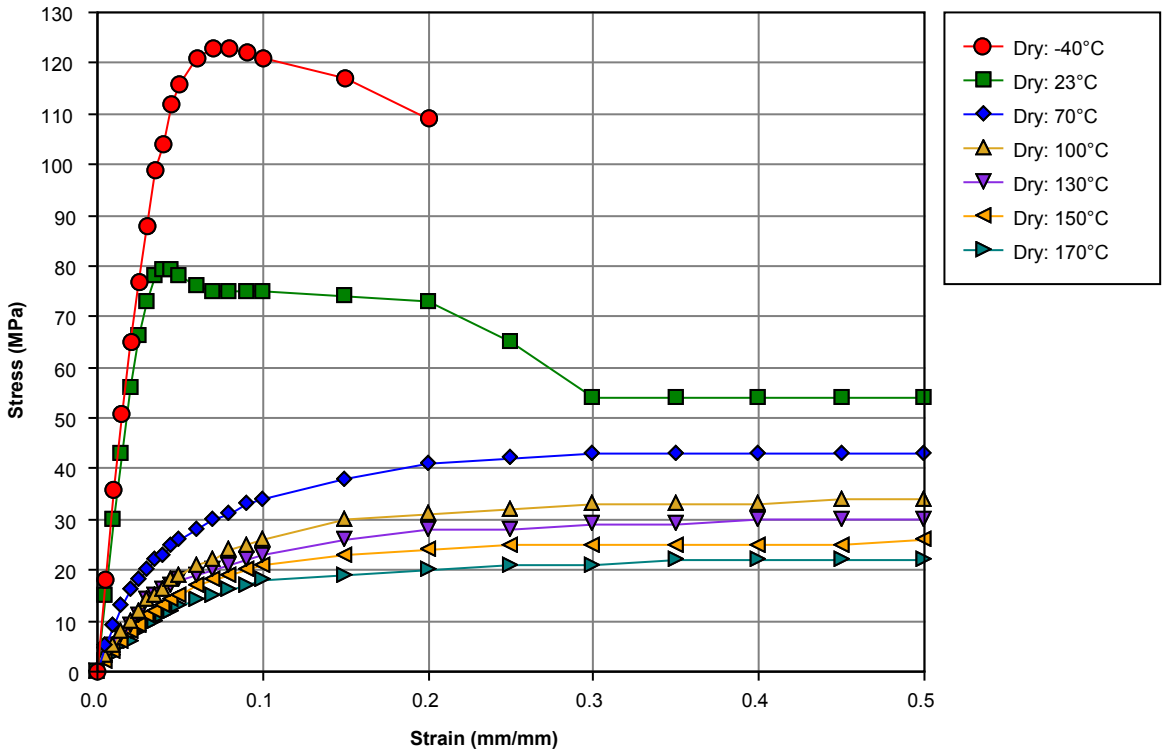
General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Features	• General Purpose • Good Chemical Resistance • Good Toughness	• Heat Stabilized • High Rigidity • High Strength	• Medium Viscosity • Oil Resistant • Solvent Resistant
Uses	• Industrial Applications • Monofilaments	• Profiles • Rods	• Sheet • Tubing
Agency Ratings	• ASTM D 4066 PA0123 • ASTM D 6779 PA0123	• FDA 21 CFR 177.1500 • FED L-P-410A	• MIL M-20693B
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1)		

Physical	Dry	Conditioned	Unit	Test Method
Density	1.14	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	1.8	--	%	
Flow : 23°C, 2.00 mm	2.0	--	%	
Water Absorption (Saturation, 23°C)	8.5	--	%	ISO 62
Water Absorption (Equilibrium, 23°C, 50% RH)	2.5	--	%	ISO 62

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	3100	1800	MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	85.0	50.0	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	55.0	50.0	MPa	ISO 527-2
Tensile Strain (Yield, 23°C)	5.5	21	%	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 Stress (23°C)	75.0	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/m²	
23°C	5.0	35	kJ/m²	
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	7.0	kJ/m²	
23°C	6.0	35	kJ/m²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature				ISO 75-2/B
0.45 MPa, Unannealed	200	--	°C	
Heat Deflection Temperature				ISO 75-2/A
1.8 MPa, Unannealed	65.0	--	°C	
Melting Temperature	260	--	°C	ISO 11357-3
CLTE - Flow (23 to 55°C, 2.00 mm)	1.0E-4	--	cm/cm/°C	ISO 11359-2
CLTE - Transverse (23 to 55°C, 2.00 mm)	1.0E-4	--	cm/cm/°C	ISO 11359-2

Isothermal Stress vs. Strain (ISO 11403-1)



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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