

Vydyne® 65A

Polyamide 66

Ascend Performance Materials Operations LLC

Message:

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 Information	
Features	Rigidity, high
	High strength
	Solvent resistance
	Good chemical resistance
	Oil resistance
	Thermal Stability
	Good toughness
	General
	Medium viscosity
Uses	Bar
	monofilament
	Industrial application
	Pipe fittings
	Sheet
	Profile
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 compliance
Appearance	Natural color
Forms	Particle
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/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Vertical flow direction: 23°C, 2.00mm	1.8	--	%	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	1800	MPa	ISO 527-2
Tensile Stress				ISO 527-2
Yield, 23°C	85.0	50.0	MPa	ISO 527-2
Fracture, 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/m ²	ISO 179/1eA
23°C	5.0	35	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	5.0	7.0	kJ/m ²	ISO 180
23°C	6.0	35	kJ/m ²	ISO 180
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	200	--	°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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Recommended distributors for this material

Susheng Import & Export Trading Co., Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

