

Vydyne® 75HF

polyamide 66/6 copolymer



Vydyne 75HF is a medium-high-viscosity, heat-stabilized PA66/6 copolymer resin designed for extrusion applications. This product is available in natural only. It offers a well-balanced combination of engineering properties characterized by high melt point; high strength and rigidity; good toughness; soft hand and good chemical resistance.

This resin is especially useful in applications where high elongation, good clarity in thin sections and soft feel are required.

Typical Applications/End Uses:

Typical uses include packaging films, monofilaments, bristles, and extruded profiles.

General				
Material Status	• Commercial: Active			
Availability	• Asia Pacific	• Europe	• North America	
Additive	• Heat Stabilizer			
Features	• Gasoline Resistance • General Purpose • Good Chemical Resistance • Good Toughness	• Heat Stabilized • High Melt Stability • High Molecular Weight • High Rigidity	• High Strength • Medium Viscosity • Oil Resistant • Solvent Resistant	
Uses	• Film • Industrial Applications • Monofilaments	• Profiles • Rods • Sheet	• Tubing • Vacuum Bagging Film	
RoHS Compliance	• RoHS Compliant			
Appearance	• Natural Color			
Forms	• Pellets			
Processing Method	• Extrusion			

Physical	Dry	Conditioned	Unit	Test Method
Density	1.14	--	g/cm ³	ISO 1183
Water Absorption (Saturation, 73°F)	8.5	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	2.5	--	%	ISO 62

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	392000	72500	psi	ISO 527-2
Tensile Stress (Yield, 73°F)	11600	3630	psi	ISO 527-2
Tensile Stress (Break, 73°F)	7250	5800	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	5.0	30	%	ISO 527-2
Nominal Tensile Strain at Break (73°F)	> 200	> 200	%	ISO 527-2
Flexural Modulus (73°F)	319000	36300	psi	ISO 178
Flexural Strength (73°F)	10200	1160	psi	ISO 178
Poisson's Ratio	0.40	--		ISO 527-2

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F	3.8	2.9	ft·lb/in ²	
73°F	1.9 ft·lb/in ²	No Break		
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	3.8	2.9	ft·lb/in ²	
73°F	1.9 ft·lb/in ²	No Break		
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/B
66 psi, Unannealed	113	--	°F	
Heat Deflection Temperature				ISO 75-2/A
264 psi, Unannealed	257	--	°F	
Melting Temperature	428	--	°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
Extrusion	Dry Unit			
Cylinder Zone 1 Temp.	446 to 527 °F			
Cylinder Zone 2 Temp.	446 to 527 °F			
Cylinder Zone 3 Temp.	446 to 527 °F			
Cylinder Zone 4 Temp.	446 to 527 °F			
Cylinder Zone 5 Temp.	446 to 527 °F			
Melt Temperature	455 to 527 °F			
Die Temperature	464 °F			

Extrusion Notes

Recommended Extrusion Conditions:

- Melt Point: 220°C
- Melt Pressure: 3 to 17 MPa
- Blow Film Bath Temperature: 5°C to 20°C
- Chill Roll Temperature (Cast Film): 20°C to 40°C (clear), 80°C to 100°C (high stable)
- Screw Design: General Purpose or Barrier

Notes

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

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