

## VINPOL™ PA66UFNAT42N

### General Purpose, Unfilled, Natural Polyamide 66

Unfilled

Natural Color

**VINPOL PA66UFNAT42N** is a high flow general-purpose, unfilled, mildly nucleated, lubricated polyamide 66 resin in natural color. This resin is designed for unreinforced molding applications. The excellent flow characteristics can allow reduced processing temperatures, while fast and consistent crystallization enables faster molding cycles without compromising ductility and impact resistance.

Resin Property	Typical Value	Units	Test Method
Relative Viscosity in formic acid, nominal	42	-	ASTM D789
Viscosity Number, 0.5% sulfuric acid, nominal	140	mL/g	ISO 307
Relative Viscosity in 1% sulfuric acid, nominal	2.57	-	-
Density	1.14	g/cm <sup>3</sup>	ISO 1183
Mold Shrinkage, 2.0 mm, Parallel	1.5	%	ISO 294-4
Mold Shrinkage, 2.0 mm, Transverse	1.5	%	ISO 294-4
Water Absorption—24 hrs	1.8	%	ISO 62
Water Absorption—Equilibrium @ 50% RH	2.6	%	ISO 62
Tensile Strength at Yield	85	MPa	ISO 527
Elongation at Yield	4.2	%	ISO 527
Elongation at Break	30	%	ISO 527
Tensile Modulus	3150	MPa	ISO 527
Flexural Modulus	2900	MPa	ISO 178
Flexural Strength	95	MPa	ISO 178
Notched Charpy @ 23°C	5.3	kJ/m <sup>2</sup>	ISO 179
Notched Charpy @ -30°C	4.9	kJ/m <sup>2</sup>	ISO 179
Unnotched Charpy @ 23°C	NB	kJ/m <sup>2</sup>	ISO 179
Unnotched Charpy @ -30°C	NB	kJ/m <sup>2</sup>	ISO 179
Notched Izod @ 23°C	4.2	kJ/m <sup>2</sup>	ISO 180
Melting Temperature, 10°C/min	260	°C	ISO 11357
HDT at 0.45 MPa	215	°C	ISO 75
HDT at 1.80 MPa	66	°C	ISO 75
Comparative Tracking Index, 3.0 mm	≥600	volts	UL 746A
High Voltage Arc Tracking Rate	PLC 0	-	UL 746A
Dielectric Strength, 1.0 mm	18	kV/mm	UL 746A
Flame Rating at 0.40 mm	V-2	-	UL 94
Flame Rating at 0.71 mm	V-2	-	UL 94
Flame Rating at 1.5 mm	V-2	-	UL 94
Flame Rating at 3.0 mm	V-2	-	UL 94

Drying conditions: 80°C for 3-4 hrs (initial moisture below 0.25 wt%. Use dehumidified air)

Processing Conditions: Melt temperature: 280-295°C. Mold temperature: 50-90°C. Melt pressure: 2-10 bar.

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