

Properties (dry)		Value	Units	Method
Viscosity	RV in formic acid, nominal	51	---	ASTM D789
	VN at 0.5% in sulfuric acid, nominal	155	mL/g	ISO 307
	RV at 1% in sulfuric acid, nominal	2.8	---	---
Physical	Density	1.14	g/cm <sup>3</sup>	ISO 1183
	Mold Shrinkage, 2.0 mm, Parallel	1.6	%	ISO 294-4
	Mold Shrinkage, 2.0 mm, Transverse	1.9	%	ISO 294-4
	Water Absorption - 24 hours	1.6	%	ISO 62
	Water Absorption - Equilibrium @ 50% RH	2.6	%	ISO 62
Mechanical	Tensile Strength at Yield	80	MPa	ISO 527
	Elongation at Yield	3.8	%	ISO 527
	Elongation at Break	30	%	ISO 527
	Tensile Modulus	2850	MPa	ISO 527
	Flexural Modulus	2900	MPa	ISO 178
	Flexural Strength	92	MPa	ISO 178
	Notched Charpy at 23°C	4.7	kJ/m <sup>2</sup>	ISO 179
	Notched Charpy at -30°C	4.1	kJ/m <sup>2</sup>	ISO 179
	Unnotched Charpy at 23°C	NB	kJ/m <sup>2</sup>	ISO 179
	Unnotched Charpy at -30°C	NB	kJ/m <sup>2</sup>	ISO 179
	Notched Izod at 23°C	4.8	kJ/m <sup>2</sup>	ISO 180
Thermal	Melting Temperature, 10°C/min	262	°C	ISO 11357
	HDT at 0.45 MPa	207	°C	ISO 75
	HDT at 1.80 MPa	65	°C	ISO 75

**Product Description**

INVISTA U5101 NC01 is a natural PA66 resin suitable for compounding, injection molding, and extrusion applications where ease of processing, good color and physical property retention are desired.

**General Information**
**Material Status**

Commercial: Active

**Availability**

North America, South America, Europe, Asia

**Features**

Good whiteness, moderate-low viscosity

**RoHS**

No intentional additives or ingredients used in U5101 are among those in the European directive 2011/65/EC (RoHS), as amended.

**Process Guidelines for Molding**

Drying Temperature	80 °C
Drying Time*	6 - 10 hours
Barrel Temperatures	
Rear	250 - 270 °C
Middle	270 - 290 °C
Front	270 - 290 °C
Nozzle	270 - 290 °C
Processing Temperature (melt)	280 - 295 °C
Mold Temperature	50 - 90 °C
Back Pressure**	2 - 10 bar
Vent Depth	0.007 - 0.04 mm
Cushion (range)	4 - 6 mm
Suggested Moisture (max)	0.20 wt%
Suggested Moisture (min)	0.10 wt%
Screw Speed	75 - 180 rpm

\* Initial moisture below 0.4 wt%. Use dehumidified air.

\*\* Melt pressure

**INVISTA Nylon Polymer**

Additional Information: NISP@INVISTA.com

Website: NylonPolymer.INVISTA.com

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**Product Data Sheet Disclaimer**

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