

Properties (dry)		Value	Units	Method
Viscosity	RV in formic acid, nominal	46	---	ASTM D789
	VN at 0.5% in sulfuric acid, nominal	147	mL/g	ISO 307
	VN at 0.5% in formic acid, nominal	134	mL/g	ISO 307
	RV at 1% in sulfuric acid, nominal	2.65	---	---
Physical	Density	1.14	g/cm <sup>3</sup>	ISO 1183
	Mold Shrinkage, 2.0 mm, Parallel	1.8	%	ISO 294-4
	Mold Shrinkage, 2.0 mm, Transverse	1.7	%	ISO 294-4
	Water Absorption - 24 hours	1.7	%	ISO 62
	Water Absorption - Equilibrium @ 50% RH	2.6	%	ISO 62
Mechanical	Tensile Strength at Yield	84	MPa	ISO 527
	Elongation at Yield	4.4	%	ISO 527
	Elongation at Break	30	%	ISO 527
	Tensile Modulus	3000	MPa	ISO 527
	Flexural Modulus	2900	MPa	ISO 178
	Flexural Strength	94	MPa	ISO 178
	Notched Charpy at 23°C	4.5	kJ/m <sup>2</sup>	ISO 179
	Notched Charpy at -30°C	3.8	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	4.4	kJ/m <sup>2</sup>	ISO 180
Thermal	Melting Temperature, 10°C/min	260	°C	ISO 11357
	HDT at 0.45 MPa	185	°C	ISO 75
	HDT at 1.80 MPa	62	°C	ISO 75
	CLTE, 2.0 mm, Parallel, 23 - 55 °C	0.9	10 <sup>-4</sup> /°C	ISO 11359
	CLTE, 2.0 mm, Transverse, 23 - 55 °C	0.9	10 <sup>-4</sup> /°C	ISO 11359
Electrical	Dielectric Strength, 1.0 mm	18	kV/mm	UL 746A
	Comparative Tracking Index, 3.0 mm	600	volts	IEC 60112
	High Voltage Arc Tracking Rate (HVTR)	PLC 0	---	UL 746A
	High Volt, Low Current Arc Resistance	PLC 5	---	UL 746A
Flammability	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
	Glow-Wire Flammability at 0.71 mm	960	°C	IEC 60695
	Glow-Wire Flammability at 1.5 mm	960	°C	IEC 60695
Glow-Wire Flammability at 3.0 mm	960	°C	IEC 60695	

### Product Description

INVISTA U4630HSL NC01 is a heat-stabilized, lubricated PA66 resin in natural color. The heat stabilizer system has been designed to provide excellent property retention in high temperature applications. It is lubricated internally and externally.

### General Information

#### Material Status

Commercial: Active

#### Availability

North America, South America, Europe, Asia

#### Features

Excellent property retention at elevated temperatures, with improved flow and processability.

#### RoHS

No intentional additives or ingredients used in U4630HSL are among those in the European directive 2011/65/EC (RoHS), as amended.

### Process Guidelines for Molding

Drying Temperature	80 °C
Drying Time*	3 - 4 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 0.25 wt%. Use dehumidified air.

\*\* Melt pressure

### INVISTA Nylon Polymer

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