

Properties (dry)		Value	Units	Method	
Viscosity	RV in formic acid, nominal	35	---	ASTM D789	
	VN at 0.5% in sulfuric acid, nominal	126	mL/g	ISO 307	
	RV at 1% in sulfuric acid, nominal	2.4	---	---	
Physical	Density	1.14	g/cm ³	ISO 1183	
	Mold Shrinkage, 2.0 mm, Parallel	1.1	%	ISO 294-4	
	Mold Shrinkage, 2.0 mm, Transverse	1.1	%	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	82	MPa	ISO 527	
	Elongation at Yield	3.9	%	ISO 527	
	Elongation at Break	45	%	ISO 527	
	Tensile Modulus	3000	MPa	ISO 527	
	Flexural Modulus	2700	MPa	ISO 178	
	Flexural Strength	91	MPa	ISO 178	
	Notched Charpy at 23°C	4.7	kJ/m ²	ISO 179	
	Notched Charpy at -30°C	4.5	kJ/m ²	ISO 179	
	Unnotched Charpy at 23°C	NB	kJ/m ²	ISO 179	
	Unnotched Charpy at -30°C	NB	kJ/m ²	ISO 179	
	Notched Izod at 23°C	4.8	kJ/m ²	ISO 180	
	Thermal	Melting Temperature, 10°C/min	264	°C	ISO 11357
		HDT at 0.45 MPa	199	°C	ISO 75
HDT at 1.80 MPa		69	°C	ISO 75	
CLTE, 2.0 mm, Parallel, 23 - 55 °C		0.8	10 ⁻⁴ /°C	ISO 11359	
CLTE, 2.0 mm, Transverse, 23 - 55 °C		0.9	10 ⁻⁴ /°C	ISO 11359	

Product Description

INVISTA U3501 NC01 is a low viscosity, 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

High flow for ease of processing, stable low viscosity, good whiteness

RoHS

No intentional additives or ingredients used in U3501 are among those in the European directive 2011/65/EC (RoHS), as amended.

Process Guidelines for Molding

Drying Temperature	80 °C
Drying Time*	8 - 12 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 0.5 wt%. Use dehumidified air.

** Melt pressure

INVISTA Nylon Polymer

Additional Information: NISP@INVISTA.com

Website: NylonPolymer.INVISTA.com

Issue Date: January 2019

Product Data Sheet Disclaimer

This Product Data Sheet relates only to the identified product and any identified uses. It is based on information available as of November 2017. Additional information may be needed to evaluate other uses of the product, including use of the product in combination with any materials or in any processes other than those specifically referenced. THIS PRODUCT DATA SHEET DOES NOT CONTAIN A COMPLETE STATEMENT OF, AND DOES NOT CONSTITUTE A REPRESENTATION, WARRANTY OR GUARANTY WITH REGARD TO, A PRODUCT'S CHARACTERISTICS, USES, QUALITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR THE SUITABILITY, SAFETY, EFFICACY, HAZARDS OR HEALTH EFFECTS OF THE PRODUCT, WHETHER USED SINGULARLY OR IN COMBINATION WITH ANY OTHER PRODUCT, EXCEPT TO THE EXTENT REQUIRED BY THE RELEVANT LAW AND REGULATIONS. Nothing contained in this Product Data Sheet shall be construed to modify any of the terms under which the product was sold by INVISTA.