INVISTA™ Nylon Polymer

Product Information

INVISTA HyperFlow™ U2501 PA66 Resin

Properties (dry)		Value	Units	Method
Viscosity	RV in formic acid, nominal	25	—	ASTM D789
	VN at 0.5% in sulfuric acid, nominal	100	mL/g	ISO 307
	RV at 1% in sulfuric acid, nominal	2.1	—	—
Physical	Density	1.14	g/cm^3	ISO 1183
	Mold Shrinkage, 2.0 mm, Parallel	1.3	%	ISO 294-4
	Mold Shrinkage, 2.0 mm, Transverse	1.5	%	ISO 294-4
	Water Absorption - 24 hours	2.0	%	ISO 62
	Water Absorption - Equilibrium @ 50% RH		%	ISO 62
Mechanical	Tensile Strength at Yield	82	MPa	ISO 527
	Elongation at Yield	4.5	%	ISO 527
	Elongation at Break	9	%	ISO 527
	Tensile Modulus	3000	MPa	ISO 527
	Flexural Modulus	2800	MPa	ISO 178
	Flexural Strength	116	MPa	ISO 178
	Notched Charpy at 23°C	4.4	kJ/m^2	ISO 179
	Notched Charpy at -30°C	4.3	kJ/m^2	ISO 179
	Unnotched Charpy at 23°C	NB	kJ/m^2	ISO 179
	Unnotched Charpy at -30°C	70	kJ/m^2	ISO 179
	Notched Izod at 23°C	3.7	kJ/m^2	ISO 180
Thermal	Melting Temperature, 10°C/min	265	°C	ISO 11357
	HDT at 0.45 MPa	207	°C	ISO 75
	HDT at 1.80 MPa	73	°C	ISO 75

Product Description

INVISTA HyperFlow™ U2501 is a very low viscosity PA66 resin intended for compounding. Its proprietary formulation provides exceptionally good flow in glass-fiber-reinforced resins.

General Information

Material Status

Commercial: Active

Availability

North America, South America, Europe, Asia

Features

Exceptionally high flow, excellent mechanical properties in glass-fiber-reinforced resins

RoHS

No intentional additives or ingredients used in HyperFlow™ U2501 are among those in the European directive 2011/65/EC (RoHs), as amended.

Process Guidelines for Molding

Drying Temperature	80 °C
Drying Time*	10 - 16 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

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Website: NylonPolymer.INVISTA.com

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