



# Product Information

## TORZEN™ G4000HSL NC01 PA66 Resin

### Product Description

TORZEN™ G4000HSL NC01 is a 40% glass reinforced, heat stabilized, natural, PA66 resin suitable for many injection molding applications where high tensile strength and dimensional stability are needed.

Properties (dry)		Value	Units	Method
Physical	Density	1.47	g/cm <sup>3</sup>	ISO 1183
	Glass Fiber Content	40	%	ISO 3451/4
	Mold Shrinkage, 2.0 mm, Normal	0.85 – 0.95	%	ISO 294-4
	Mold Shrinkage, 2.0 mm, Parallel	0.35 – 0.45	%	ISO 294-4
	Water Absorption - 24 hours	0.70	%	ISO 62
	Water Absorption - Equilibrium @ 50% RH	1.1	%	ISO 62
Mechanical	Tensile Strength at Break	225	MPa	ISO 527
	Elongation at Break	3.0	%	ISO 527
	Tensile Modulus	12,300	MPa	ISO 527
	Flexural Modulus	10,300	MPa	ISO 178
	Flexural Strength	320	MPa	ISO 178
	Notched Charpy at 23°C	13	kJ/m <sup>2</sup>	ISO 179
	Notched Charpy at -40°C	10	kJ/m <sup>2</sup>	ISO 179
	Notched Izod at 23°C	13	kJ/m <sup>2</sup>	ISO 180
Thermal	Melting Temperature, 10°C/min	262	°C	ISO 11357
	HDT at 0.45 MPa	260	°C	ISO 75
	HDT at 1.82 MPa	250	°C	ISO 75

### General Information

#### Material Status

Commercial: Active

#### Availability

North America, South America, Europe, Asia

#### Features

Glass reinforced, heat stabilized, good machine feed and mold release

#### RoHS

*No intentional additives or ingredients used in TORZEN™ G4000HSL NC01 PA66 resin are among those in the European directive 2002/95/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 - 300 °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)	0.18 wt%
Suggested Moisture (min)	0.08 wt%
Screw Speed	Low rpm

\* Initial moisture below 0.25 wt%. Use dehumidified air.

\*\* Melt pressure

### INVISTA Engineering Polymers

#### Additional Information:

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