



# Zytel® 80G14AHS NC010

## DuPont Performance Polymers - NYLON RESIN

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### General Information

#### Product Description

Zytel® 80G14AHS NC010 is a 14% glass fiber reinforced, toughened, high flow, heat stabilized polyamide 66 resin. It offers outstanding performance in injection molding applications.

#### General

Material Status	• Preliminary Data <sup>1</sup>		
Regional Availability	• Africa & Middle East • Asia Pacific • Central America	• Europe • Latin America • North America	• South America
Filler / Reinforcement	• Glass Fiber Reinforcement, 14% Filler by Weight		
Additive	• Heat Stabilizer	• Impact Modifier	
Features	• Fatigue Resistant • Fuel Resistant • Good Chemical Resistance • Good Heat Aging Resistance	• Good Impact Resistance • Good Thermal Aging Resistance • Good Toughness • Grease Resistant	• Heat Stabilized • Impact Modified • Oil Resistant
RoHS Compliance	• Contact Manufacturer		
Automotive Specifications	• ASTM D6779 PA016G15 • CHRYSLER MS-DB41 CPN3155	• FORD WSK-M4D591-A • GM GMP.PA66.002 <sup>2</sup>	• GM GMP.PA66.057 <sup>2</sup>
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		
Part Marking Code (ISO 11469)	• >PA66-IGF14<		
Resin ID (ISO 1043)	• PA66-IGF14		

### ASTM & ISO Properties <sup>3</sup>

Physical	Dry	Conditioned	Unit	Test Method
Density	1.19	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow: 0.0787 in (2.00 mm)	0.80	--	%	
Flow: 0.0787 in (2.00 mm)	0.70	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F (23°C))	725000 (5000)	479000 (3300)	psi (MPa)	ISO 527-2
Tensile Stress				ISO 527-2
Break, 73°F (23°C)	16000 (110)	10400 (72.0)	psi (MPa)	
Tensile Strain				ISO 527-2
Break, 73°F (23°C)	3.8	9.0	%	

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<b>Mechanical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Flexural Modulus (73°F (23°C))	638000 (4400)	453000 (3120)	psi (MPa)	ISO 178
<b>Impact</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Charpy Notched Impact Strength				ISO 179/1eA
-40°F (-40°C)	--	2.9 (6.0)	ft·lb/in <sup>2</sup> (kJ/m <sup>2</sup> )	
-22°F (-30°C)	4.3 (9.0)	3.3 (7.0)	ft·lb/in <sup>2</sup> (kJ/m <sup>2</sup> )	
73°F (23°C)	6.2 (13)	8.1 (17)	ft·lb/in <sup>2</sup> (kJ/m <sup>2</sup> )	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F (-30°C)	--	34 (71)	ft·lb/in <sup>2</sup> (kJ/m <sup>2</sup> )	
73°F (23°C)	35 (73)	36 (76)	ft·lb/in <sup>2</sup> (kJ/m <sup>2</sup> )	
Notched Izod Impact Strength				ISO 180/1A
-40°F (-40°C)	2.9 (6.0)	--	ft·lb/in <sup>2</sup> (kJ/m <sup>2</sup> )	
32°F (0°C)	5.2 (11)	--	ft·lb/in <sup>2</sup> (kJ/m <sup>2</sup> )	
73°F (23°C)	6.2 (13)	--	ft·lb/in <sup>2</sup> (kJ/m <sup>2</sup> )	
<b>Thermal</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Heat Deflection Temperature				ISO 75-2/A
264 psi (1.8 MPa), Unannealed	464 (240)	--	°F (°C)	
Melting Temperature <sup>4</sup>	505 (263)	--	°F (°C)	ISO 11357-3
<b>Electrical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Dissipation Factor				IEC 60250
73°F (23°C), 100 Hz	0.027	0.018		
<b>Flammability</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Flame Rating				
0.0295 in (0.750 mm)	HB	--		UL 94
0.0591 in (1.50 mm)	HB	--		UL 94
0.118 in (3.00 mm)	HB	--		UL 94
0.118 in (3.00 mm)	HB40	--		IEC 60695-11-10, -20
0.0295 in (0.750 mm)	HB75	--		IEC 60695-11-10, -20
0.0591 in (1.50 mm)	HB75	--		IEC 60695-11-10, -20

### Processing Information

<b>Injection</b>	<b>Dry (English)</b>	<b>Dry (SI)</b>
Drying Temperature	176 °F	80.0 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr

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Injection	Dry (English)	Dry (SI)
Suggested Max Moisture	< 0.20 %	< 0.20 %
Processing (Melt) Temp	545 to 581 °F	285 to 305 °C
Melt Temperature, Optimum	563 °F	295 °C
Mold Temperature	122 to 212 °F	50.0 to 100 °C
Mold Temperature, Optimum	176 °F	80 °C

### Notes

<sup>1</sup> The above data are preliminary and are subject to change as additional data are developed on subsequent lots.

<sup>2</sup> This specification is applicable for the Americas region.

<sup>3</sup> Typical properties: these are not to be construed as specifications.

<sup>4</sup> 10°C/min