

# Zytel® 70G30HSLR BK099

NYLON RESIN

DuPont Performance Polymers

# PROSPECTOR®

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## Technical Data

### Product Description

30% Glass Reinforced, Heat Stabilized, Hydrolysis Resistant, Polyamide 66

### General

Material Status	• Commercial: Active
Literature <sup>1</sup>	• <a href="#">Processing - Injection Molding (English)</a> • <a href="#">Processing - Injection Molding of Glass-reinforced Zytel (English)</a> • <a href="#">Typical Processing for DuPont Engineering Polymers (English)</a>
UL Yellow Card <sup>2</sup>	• <a href="#">E41938-234406</a>
Search for UL Yellow Card	• <a href="#">DuPont Performance Polymers</a> • <a href="#">Zytel®</a>
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Additive	• Heat Stabilizer
Features	• Heat Stabilized • Hydrolysis Resistant
RoHS Compliance	• Contact Manufacturer
Processing Method	• Injection Molding
Multi-Point Data	• Shear Modulus vs. Temperature (ISO 11403-1) • Shear Stress vs. Shear Rate (ISO 11403-1) • Specific Volume vs Temperature (ISO 11403-2) • Tensile Modulus vs. Temperature, Dynamic (ISO 11403-1) • Viscosity vs. Shear Rate (ISO 11403-2)
Part Marking Code (ISO 11469)	• >PA66-GF30<
Resin ID (ISO 1043)	• PA66-GF30

Physical	Dry	Conditioned	Unit	Test Method
Density	1.37	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.0	--	%	
Flow	0.30	--	%	

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	1.45E+6 (10000)	1.02E+6 (7000)	psi (MPa)	ISO 527-2
Tensile Stress (Break)	29000 (200)	18900 (130)	psi (MPa)	ISO 527-2
Tensile Strain (Break)	3.0	5.0	%	ISO 527-2
Flexural Modulus	--	943000 (6500)	psi (MPa)	ISO 178

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F (-30°C)	4.3 (9.0)	4.3 (9.0)	ft·lb/in <sup>2</sup> (kJ/m <sup>2</sup> )	
73°F (23°C)	5.7 (12)	6.7 (14)	ft·lb/in <sup>2</sup> (kJ/m <sup>2</sup> )	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F (-30°C)	33 (70)	33 (70)	ft·lb/in <sup>2</sup> (kJ/m <sup>2</sup> )	
73°F (23°C)	38 (80)	43 (90)	ft·lb/in <sup>2</sup> (kJ/m <sup>2</sup> )	



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Impact	Dry	Conditioned	Unit	Test Method
Notched Izod Impact Strength (73°F (23°C))	4.8 (10)	5.7 (12)	ft·lb/in <sup>2</sup> (kJ/m <sup>2</sup> )	ISO 180/1A
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
66 psi (0.45 MPa), Unannealed	502 (261)	--	°F (°C)	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	487 (253)	--	°F (°C)	ISO 75-2/A
Melting Temperature <sup>4</sup>	504 (262)	--	°F (°C)	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Comparative Tracking Index (CTI)	PLC 1	--		UL 746
Comparative Tracking Index	400	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate <sup>5</sup> (0.0394 in (1.00 mm))	0.94 (24)	--	in/min (mm/min)	ISO 3795
Flame Rating				UL 94 IEC 60695-11-10, -20
0.0295 in (0.750 mm)	HB	--		
0.0591 in (1.50 mm)	HB	--		
Oxygen Index	24	--	%	ISO 4589-2
Fogging - G-value (condensate)	6.0E-4	--	g	ISO 6452
Additional Information	Dry	Conditioned	Unit	Test Method
Emission of Organic Compounds	10.0	--	µgC/g	VDA 277
Odor	5.00	--		VDA 270

Injection	Dry (English)	Dry (SI)
Drying Temperature	176 °F	80.0 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
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	158 to 248 °F	70.0 to 120 °C
Mold Temperature, Optimum	212 °F	100 °C
Holding Pressure	7250 to 14500 psi	50.0 to 100 MPa
Drying Recommended	yes	yes
Ejection Temperature	410 °F	210 °C
Hold Pressure Time	3.00 s/mm	3.00 s/mm
Screw Tangential Speed	472 in/min	200 mm/sec

**Notes**

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

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

<sup>4</sup> 10°C/min

<sup>5</sup> FMVSS 302



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**Where to Buy**

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**Supplier**

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**DuPont Performance Polymers**

Wilmington, DE USA

**Telephone:** 302-999-4592**Web:** <http://plastics.dupont.com/>

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**Distributor**

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