

# Zytel® 70G33HS1L BK031

NYLON RESIN

DuPont Performance Polymers

PROSPECTOR®

www.ulprospector.com

## Technical Data

### Product Description

33% Glass Reinforced, Heat Stabilized, Polyamide 66

### General

Material Status	• Commercial: Active
Literature <sup>1</sup>	• Processing - Injection Molding (English) • Processing - Injection Molding of Glass-reinforced Zytel (English) • Typical Processing for DuPont Engineering Polymers (English)
UL Yellow Card <sup>2</sup>	• E41938-234409
Search for UL Yellow Card	• DuPont Performance Polymers • Zytel®
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 33% Filler by Weight
Additive	• Heat Stabilizer
Features	• Heat Stabilized
RoHS Compliance	• Contact Manufacturer
Processing Method	• Injection Molding
Part Marking Code (ISO 11469)	• >PA66-GF33<
Resin ID (ISO 1043)	• PA66-GF33

Physical	Dry	Conditioned	Unit	Test Method
Density	1.39	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.1	--	%	
Flow	0.30	--	%	
Viscosity Number	140	--	cm <sup>3</sup> /g	ISO 307
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	11000	8000	MPa	ISO 527-2
Tensile Stress (Break)	200	140	MPa	ISO 527-2
Tensile Strain (Break)	3.0	4.0	%	ISO 527-2
Flexural Modulus	9300	--	MPa	ISO 178
Flexural Stress	280	195	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°C	10	--	kJ/m <sup>2</sup>	
23°C	13	13	kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength (23°C)	75	80	kJ/m <sup>2</sup>	ISO 179/1eU
Notched Izod Impact Strength				ISO 180/1A
-40°C	10	--	kJ/m <sup>2</sup>	
23°C	12	--	kJ/m <sup>2</sup>	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	261	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	252	--	°C	ISO 75-2/A
Melting Temperature <sup>4</sup>	262	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	1.8E-5	--	cm/cm/°C	
Transverse	8.3E-5	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Comparative Tracking Index (CTI)	PLC 1	--		UL 746



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Electrical	Dry	Conditioned	Unit	Test Method
Comparative Tracking Index	400	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate <sup>5</sup> (1.00 mm)	28	--	mm/min	ISO 3795
Flame Rating				UL 94
0.750 mm	HB	--		IEC 60695-11-10,
1.50 mm	HB	--		-20
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	3.00	--		VDA 270

Injection	Dry Unit
Drying Temperature	80.0 °C
Drying Time	2.0 to 4.0 hr
Suggested Max Moisture	0.20 %
Processing (Melt) Temp	285 to 305 °C
Melt Temperature, Optimum	295 °C
Mold Temperature	70.0 to 120 °C
Mold Temperature, Optimum	100 °C
Holding Pressure	50.0 to 100 MPa
Drying Recommended	yes
Ejection Temperature	210 °C
Hold Pressure Time	3.00 s/mm
Screw Tangential Speed	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

### Supplier

#### DuPont Performance Polymers

Wilmington, DE USA

Telephone: 302-999-4592

Web: <http://plastics.dupont.com/>

### Distributor

#### Biesterfeld Plastic GmbH

*Biesterfeld Plastic GmbH is a Pan European distribution company. Contact Biesterfeld Plastic GmbH for availability of individual products by country.*

Telephone: +49-40-32008-0

Web: <http://www.biesterfeld-plastic.com/>

Availability: Algeria, Austria, Belgium, Bosnia and Herzegovina, Brazil, Bulgaria, Croatia, Cyprus, Czech Republic, Egypt, France, Germany, Greece, Hungary, Italy, Libyan Arab Jamahiriya, Luxembourg, Mauritania, Morocco, Netherlands, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Switzerland, Tunisia, Turkey

#### CCC Plastics

Telephone: 800-465-6917

Web: <http://www.cccplastics.com/>

Availability: Canada

#### Distrupol Ltd

*Distrupol Ltd is a Pan European distribution company. Contact Distrupol Ltd for availability of individual products by country.*

Telephone: 08452003040

Web: <http://www.distrupol.com/>

Availability: Denmark, Finland, Ireland, Norway, Sweden, United Kingdom

#### PolyOne Distribution

*PolyOne Distribution is a global distribution company. Contact PolyOne Distribution for availability of individual products by country.*

Telephone: 800-894-4266

Web: <http://polyonedistribution.com/>

Availability: Global

