

Zytel® 70G33L BK031

NYLON RESIN

DuPont Performance Polymers

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

33% Glass Reinforced Polyamide 66

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 33% Filler by Weight		
RoHS Compliance	• Contact Manufacturer		
Processing Method	• Injection Molding		
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1)	• Secant Modulus vs. Strain (ISO 11403-1)	
Part Marking Code (ISO 11469)	• PA66-GF33		
Resin ID (ISO 1043)	• PA66-GF33		

Physical	Dry	Conditioned	Unit	Test Method
Density	1.39	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.1	--	%	
Flow	0.30	--	%	
Water Absorption				ISO 62
Saturation, 73°F (23°C), 0.0787 in (2.00 mm)	5.7	--	%	
Equilibrium, 73°F (23°C), 0.0787 in (2.00 mm), 50% RH	1.8	--	%	

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	1.60E+6 (11000)	1.16E+6 (8000)	psi (MPa)	ISO 527-2
Tensile Stress (Break)	29000 (200)	20300 (140)	psi (MPa)	ISO 527-2
Tensile Strain (Break)	3.0	4.0	%	ISO 527-2
Flexural Modulus	1.35E+6 (9300)	--	psi (MPa)	ISO 178
Poisson's Ratio	0.34	0.34		ISO 527

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°F (-40°C)	4.3 (9.0)	--	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	6.2 (13)	6.2 (13)	ft·lb/in ² (kJ/m ²)	
Charpy Unnotched Impact Strength				ISO 179/1eU
73°F (23°C)	38 (80)	38 (80)	ft·lb/in ² (kJ/m ²)	
Notched Izod Impact Strength				ISO 180/1A
-40°F (-40°C)	4.8 (10)	--	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	5.7 (12)	--	ft·lb/in ² (kJ/m ²)	



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	486 (252)	--	°F (°C)	ISO 75-2/A
Melting Temperature ²	504 (262)	--	°F (°C)	ISO 11357-3
CLTE				ISO 11359-2
Flow	1.0E-5 (1.8E-5)	--	in/in/°F (cm/cm/°C)	
Transverse	4.6E-5 (8.3E-5)	--	in/in/°F (cm/cm/°C)	
Electrical	Dry	Conditioned	Unit	Test Method
Comparative Tracking Index	600	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate ³ (0.0394 in (1.00 mm))	1.4 (35)	--	in/min (mm/min)	ISO 3795
Flammability Classification				IEC 60695-11-10, -20
0.028 in (0.71 mm)	HB	--		
FMVSS Flammability	B	--		FMVSS 302
Fill Analysis	Dry	Conditioned	Unit	
Ejection Temperature	410 (210)	--	°F (°C)	
Additional Information	Dry	Conditioned	Unit	Test Method
Emission of Organic Compounds	10.0	--	µgC/g	VDA 277
Odor	3.00	--		VDA 270

Injection	Dry (English)	Dry (SI)
Drying Temperature	176 °F	80 °C
Drying Time - Desiccant Dryer	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 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
Hold Pressure Time	3.00 s/mm	3.00 s/mm
Maximum Screw Tangential Speed	472 in/min	12 m/min

Notes

¹ Typical properties: these are not to be construed as specifications.

² 10°C/min

³ FMVSS 302



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

Reseller

A Reseller is not a distributor authorized by the Supplier.

Shanghai Jingyang New Material Technology Co., Ltd
Telephone: +86-021-80394788; Mr. Zhou: +86-15821998203
Web: <http://www.basfppsu.com/>
Availability: Asia Pacific, China

