

# Zytel® HTN FR52G30BL NC010

HIGH PERFORMANCE POLYAMIDE RESIN

DuPont Mobility & Materials

PROSPECTOR®

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## Technical Data

### Product Description

30% Glass Reinforced, Flame Retardant, PPA, High Performance Polyamide

### General

Material Status	• Commercial: Active
UL Yellow Card <sup>1</sup>	• E41938-100915123 • E41938-234547
Search for UL Yellow Card	• DuPont Mobility & Materials
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Additive	• Flame Retardant • Mold Release
Features	• Flame Retardant
RoHS Compliance	• Contact Manufacturer
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1) • Secant Modulus vs. Strain (ISO 11403-1)
Part Marking Code (ISO 11469)	• >PA6T/66-GF30FR(16+72)<
Part Marking Code (SAE J1344)	• >PPA-GF30FR<
Resin ID (ISO 1043)	• PA6T/66-GF30FR(16+72)
ISO Designation	• ISO 16396-PA6T/66,GF30 FR(16+72),M1F1GNR,S10-120

Physical	Dry	Conditioned	Unit	Test Method
Density	1.62	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.80	--	%	
Flow	0.30	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	12000	11000	MPa	ISO 527-1
Tensile Stress (Break)	170	150	MPa	ISO 527-2
Tensile Strain (Break)	2.0	2.0	%	ISO 527-2
Flexural Modulus	10500	--	MPa	ISO 178
Flexural Stress	250	225	MPa	ISO 178
Poisson's Ratio	0.33	0.34		
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	11	--	kJ/m <sup>2</sup>	
23°C	11	--	kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°C	40	--	kJ/m <sup>2</sup>	
-30°C	50	40	kJ/m <sup>2</sup>	
23°C	50	30	kJ/m <sup>2</sup>	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
0.45 MPa, Unannealed	300	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	282	--	°C	ISO 75-2/A
Glass Transition Temperature <sup>3</sup>	90.0	45.0	°C	ISO 11357-2
Melting Temperature <sup>4</sup>	310	--	°C	ISO 11357-3



Thermal	Dry	Conditioned	Unit	Test Method
CLTE				ISO 11359-2
Flow	2.0E-5	--	cm/cm/°C	
Flow : -40 to 23°C	2.0E-5	--	cm/cm/°C	
Flow : 55 to 160°C	1.0E-5	--	cm/cm/°C	
Transverse	6.3E-5	--	cm/cm/°C	
Transverse : -40 to 23°C	5.7E-5	--	cm/cm/°C	
Transverse : 55 to 160°C	1.0E-4	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	> 1.0E+13	--	ohms·m	IEC 62631-3-1
Electric Strength	34	--	kV/mm	IEC 60243-1
Relative Permittivity				IEC 62631-2-1
1 MHz	3.30	--		
100 Hz	3.50	--		
Dissipation Factor				IEC 62631-2-1
100 Hz	5.0E-3	--		
1 MHz	0.014	--		
Comparative Tracking Index (CTI)	PLC 1	--		UL 746A
Comparative Tracking Index				IEC 60112
--	525	--	V	
Solution B	175	--	V	
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
1.5 mm	V-0	--		IEC 60695-11-10,
	5VA	--		-20
3.0 mm	V-0	--		
Glow Wire Ignition Temperature				IEC 60695-2-13
0.75 mm	925	--	°C	
1.5 mm	925	--	°C	
3.0 mm	960	--	°C	
Oxygen Index	42	--	%	ISO 4589-2
FMVSS Flammability	DNI	--		FMVSS 302
Additional Information	Dry	Conditioned	Unit	Test Method
Fogging - F-value (refraction)	95	--	%	ISO 6452
Odor	4.50	--		VDA 270

Injection	Dry Unit
Drying Temperature	100 °C
Drying Time - Desiccant Dryer	6.0 to 8.0 hr
Suggested Max Moisture	< 0.10 %
Processing (Melt) Temp	320 to 330 °C
Melt Temperature, Optimum	325 °C
Mold Temperature	90 to 110 °C
Drying Recommended	yes

## Notes

<sup>1</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>2</sup> Typical properties: these are not to be construed as specifications.

<sup>3</sup> 10°C/min

<sup>4</sup> First Heat



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## Where to Buy

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### Supplier

**DuPont Mobility & Materials**  
Wilmington, Wilmington USA  
**Telephone:** 302-999-4592  
**Web:** <http://plastics.dupont.com/>

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### Distributor

#### **Avient Distribution**

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

**Telephone:** +1-440-930-3004 (USA); +86-21-6028-4805 (China)

**Web:** <https://now.avient.com/>

**Availability:** Global

#### **CCC Plastics**

**Telephone:** 800-461-1638

**Web:** <https://www.ccc-group.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

