Zytel® 73G15L NC010

NYLON RESIN

DuPont Transportation & Industrial

PROSPECTOR®
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Technical Data

Product Description			
15% Glass Reinforced Polyamide 6			
General			
Material Status	• Commercial: Active		
UL Yellow Card [1]	• E41938-234331		
Search for UL Yellow Card	• DuPont Transportation & Industrial • Zytel®		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 15% Filler by Weight		
Additive	• Mold Release		
RoHS Compliance	• Contact Manufacturer		
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1)	• Secant Modulus vs. Strain (ISO 11403-1)	• Tensile Modulus vs. Temperature (ISO 11403-1)
Part Marking Code (ISO 11469)	• >PA6-GF15<		
Resin ID (ISO 1043)	• PA6-GF15		
ISO Designation	• ISO 16396-PA6,GF15,M1GNR,S14-060		

Physical	Dry	Conditioned	Unit	Test Method
Density	1.23	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.80	--	%	
Flow	0.30	--	%	
Water Absorption				ISO 62
Saturation, 23°C, 2.00 mm	7.6	--	%	
Equilibrium, 23°C, 2.00 mm, 50% RH	2.5	--	%	
Viscosity Number (Reduced Viscosity)	139.0	--	ml/g	ISO 1628
Viscosity Number	139	--	cm³/g	ISO 307
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	6000	3500	MPa	ISO 527-1
Tensile Stress (Break)	140	70.0	MPa	ISO 527-2
Tensile Strain (Break)	4.0	10	%	ISO 527-2
Flexural Modulus [3]	5100	3100	MPa	ISO 178
Flexural Stress [3]	190	90.0	MPa	ISO 178
Poisson's Ratio	0.35	0.37		
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-40°C	6.0	--	kJ/m²	
-30°C	6.0	14	kJ/m²	
23°C	7.0	15	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	45	54	kJ/m²	
23°C	50	95	kJ/m²	
Notched Izod Impact Strength				ISO 180/1A
-40°C	5.0	--	kJ/m²	
-30°C	5.0	--	kJ/m²	
23°C	6.0	12	kJ/m²	
Unnotched Izod Impact Strength				ISO 180/1U
-40°C	40	--	kJ/m²	
23°C	45	--	kJ/m²	

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Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness (H 961/30)	210	123	MPa	ISO 2039-1
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load				
0.45 MPa, Unannealed	220	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	200	--	°C	ISO 75-2/A
Vicat Softening Temperature	215	--	°C	ISO 306/B50
Melting Temperature [4]	221	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	3.7E-5	--	cm/cm/°C	
Flow : -40 to 23°C	3.4E-5	--	cm/cm/°C	
Flow : 55 to 160°C	1.5E-5	--	cm/cm/°C	
Transverse	1.1E-4	--	cm/cm/°C	
Transverse : -40 to 23°C	8.0E-5	--	cm/cm/°C	
Transverse : 55 to 160°C	1.0E-4	--	cm/cm/°C	
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Burning Rate [5] (1.00 mm)	25	--	mm/min	ISO 3795
Flame Rating (1.5 mm)	• HB • HB	--		UL 94 IEC 60695-11-10, -20
Oxygen Index	21	--	%	ISO 4589-2
FMVSS Flammability	B	--		FMVSS 302
Fill Analysis	**Dry**	**Conditioned**	**Unit**	
Melt Density	1.07	--	g/cm³	
Specific Heat Capacity of Melt	2470	--	J/kg/°C	
Thermal Conductivity of Melt	0.19	--	W/m/K	
Additional Information	**Dry**	**Conditioned**	**Unit**	**Test Method**
Fogging - G-value (condensate)	0.0	--	mg	ISO 6452
Odor [3]	4.00	--		VDA 270

Injection	Dry Unit
Drying Temperature	80 °C
Drying Time - Desiccant Dryer	2.0 to 4.0 hr
Suggested Max Moisture	< 0.20 %
Processing (Melt) Temp	260 to 280 °C
Melt Temperature, Optimum	270 °C
Mold Temperature	70 to 120 °C
Mold Temperature, Optimum	100 °C
Holding Pressure	50.0 to 100 MPa
Drying Recommended	yes
Hold Pressure Time	3.00 s/mm
Maximum Screw Tangential Speed	12 m/min

Notes

[1] 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.

[2] Typical properties: these are not to be construed as specifications.

[3] Derived from Similar Grade

[4] 10°C/min

[5] FMVSS 302, Derived from Similar Grade

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Where to Buy

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