

Zytel® FR50 NC010A

NYLON RESIN
DuPont Performance Polymers

Message:
25% Glass Reinforced, Flame Retardant, Polyamide 66

General Information				
UL YellowCard		E41938-234494		
Filler / Reinforcement		Glass Fiber,25% Filler by Weight		
Additive		Mold Release		
Agency Ratings		UL Unspecified Rating		
Forms		Pellets		
Processing Method		Injection Molding		
Multi-Point Data		Isothermal Stress vs. Strain (ISO 11403-1)		
		Secant Modulus vs. Strain (ISO 11403-1)		
		Shear Stress vs. Shear Rate (ISO 11403-1)		
		Specific Volume vs Temperature (ISO 11403-2)		
		Viscosity vs. Shear Rate (ISO 11403-2)		
Part Marking Code (ISO 11469)		>PA66-GF25FR(17)<		
Resin ID (ISO 1043)		PA66-GF25FR(17)		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.60	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.80	--	%	
Flow	0.30	--	%	
Water Absorption (Equilibrium, 23°C, 2.00 mm, 50% RH)	0.70	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	10600	7500	MPa	ISO 527-2
Tensile Stress (Break)	170	--	MPa	ISO 527-2
Tensile Strain (Break)	2.5	--	%	ISO 527-2
Flexural Modulus	9450	--	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°C	11	--	kJ/m ²	
23°C	11	--	kJ/m ²	
Charpy Unnotched Impact Strength (23°C)	40	--	kJ/m ²	ISO 179/1eU

Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	256	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	246	--	°C	ISO 75-2/A
Glass Transition Temperature ¹	80.0	--	°C	ISO 11357-2
Melting Temperature ²	261	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	1.9E-5	--	cm/cm/°C	
Transverse	1.0E-4	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	> 1.0E+15	--	ohms·cm	IEC 60093
Electric Strength	38	--	kV/mm	IEC 60243-1
Dissipation Factor				IEC 60250
100 Hz	0.018	--		
1 MHz	0.018	--		
Comparative Tracking Index (CTI)	PLC 2	--		UL 746
Comparative Tracking Index	285	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flammability Classification				IEC 60695-11-10, -20
0.350 mm	V-0	--		
	V-0			
1.50 mm	5VA	--		
Fill Analysis	Dry	Conditioned	Unit	Test Method
Melt Density	1.40	--	g/cm ³	
Specific Heat Capacity of Melt	1660	--	J/kg/°C	
Thermal Conductivity of Melt	0.22	--	W/m/K	
Emission of Organic Compounds	4.70	--	µgC/g	VDA 277
Odor	4.5	--		VDA 270
NOTE				
1.	10°C/min			
2.	10°C/min			

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