Zytel® 77G33L NC010

NYLON RESIN

DuPont Performance Polymers

Message:

33% Glass Reinforced Polyamide 612

General Information	
UL YellowCard	E41938-234360
Filler / Reinforcement	Glass Fiber,33% Filler by Weight
Additive	Lubricant Mold Release
Features	Lubricated
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 Modulus vs. Temperature (ISO 11403-1) Shear Stress vs. Shear Rate (ISO 11403-1) Tensile Modulus vs. Temperature, Dynamic (ISO 11403-1) Viscosity vs. Shear Rate (ISO 11403-2)
Part Marking Code (ISO 11469)	>PA612-GF33<
Resin ID (ISO 1043)	PA612-GF33

Physical	Dry	Conditioned	Unit	Test Method
Density	1.32	--	g/cm³	ISO 1183
Molding Shrinkage				
Flow : 3.20 mm	0.20	--	%	Internal Method
Across Flow : 3.20 mm	1.0	--	%	Internal Method
Across Flow	0.90	--	%	ISO 294-4
Flow	0.30	--	%	ISO 294-4
Water Absorption				
24 hr	0.30	--	%	ASTM D570
23°C, 24 hr, 2.00 mm	1.8	--	%	ISO 62
Equilibrium, 23°C, 2.00 mm, 50% RH	0.70	--	%	ISO 62
Viscosity Number	100	--	cm³/g	ISO 307

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	9500	7900	MPa	ISO 527-2

Tensile Stress (Break)	168	140	MPa	ISO 527-2
Tensile Strain (Break)	3.2	3.2	%	ISO 527-2
Flexural Modulus	8200	7000	MPa	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-40°C	12	10	kJ/m²	
-30°C	11	10	kJ/m²	
23°C	13	12	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	60	65	kJ/m²	
23°C	80	90	kJ/m²	
Notched Izod Impact Strength				ISO 180/1A
-40°C	11	10	kJ/m²	
-30°C	11	10	kJ/m²	
23°C	13	12	kJ/m²	
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	60	45	kJ/m²	
23°C	70	60	kJ/m²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature				
0.45 MPa, Unannealed	216	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	200	--	°C	ISO 75-2/A
Glass Transition Temperature [1]	65.0	--	°C	ISO 11357-2
Melting Temperature [2]	218	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	1.7E-5	--	cm/cm/°C	
Flow : -40 to 23°C	2.6E-5	--	cm/cm/°C	
Flow : 55 to 160°C	1.6E-5	--	cm/cm/°C	
Transverse	1.1E-4	--	cm/cm/°C	
Transverse : -40 to 23°C	8.3E-5	--	cm/cm/°C	
Transverse : 55 to 160°C	1.6E-4	--	cm/cm/°C	
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	--	1.0E+12	ohms	IEC 60093
Volume Resistivity	1.0E+15	1.0E+12	ohms·cm	IEC 60093
Electric Strength	33	30	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
100 Hz	4.10	--		
1 MHz	3.80	--		

Dissipation Factor				IEC 60250
100 Hz	0.014	--		
1 MHz	0.015	--		
Comparative Tracking Index	600	--	V	IEC 60112
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Burning Rate (1.00 mm)	23	--	mm/min	ISO 3795
Flammability Classification				IEC 60695-11-10, -20
0.710 mm	HB	--		
1.50 mm	HB	--		
Oxygen Index	23	--	%	ISO 4589-2
Fill Analysis	**Dry**	**Conditioned**	**Unit**	
Specific Heat Capacity of Melt	2130	--	J/kg/°C	
Thermal Conductivity of Melt	0.26	--	W/m/K	
Effective Thermal Diffusivity	0.0750	--	cSt	
NOTE				
1.	10°C/min			
2.	10°C/min			

Recommended distributors for this material

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