

Product Texts**Zytel® HTNFR51G35L NC010 is a 35% Glass Reinforced, Flame Retardant, PPA, High Performance Polyamide**

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.2 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.6 / *	%	ISO 294-4, 2577
^[C] Density of melt	1490	kg/m ³	-
^[C] Thermal conductivity of melt	0.25	W/(m K)	-
^[C] Spec. heat capacity of melt	2400	J/(kg K)	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	14000 / 14000	MPa	ISO 527
^[C] Stress at break	170 / 130	MPa	ISO 527
^[C] Strain at break	1.5 / 1.1	%	ISO 527
^[C] Charpy impact strength, +23°C	40 / 30	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	35 / 30	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	11 / -	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	13 / -	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	300 / *	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	135 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	260 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	270 / *	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	18 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	50 / *	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	-
Yellow Card available	yes / *	-	-
^[C] Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	-
Yellow Card available	yes / *	-	-
^[C] Oxygen index	38 / *	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	3.9 / -	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	3.6 / -	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	80 / -	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	150 / -	E-4	IEC 62631-2-1
^[C] Volume resistivity	>1E13 / 1E13	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	* / 1E13	Ohm	IEC 62631-3-2
^[C] Electric strength	34 / 34	kV/mm	IEC 60243-1
^[C] Comparative tracking index	500 / -	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Density	1650 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Characteristics**Processing**

Injection Molding

Special Characteristics

Flame retardant

Delivery form

Pellets

Regional Availability

North America, Europe, Asia Pacific, South and Central America

Additives

Lubricants, Release agent

Other text information**Injection molding**

During molding, use proper protective equipment and adequate ventilation. Avoid exposure to fumes and limit the hold up time and temperature of the resin in the machine. Purge degraded resin carefully with HDPE.

When lower mold temperatures are used, the initial warpage and shrinkage may be lower, but the surface appearance and chemical resistance may be reduced, and the dimensional change may be greater when parts are subsequently heated.