Zytel® HTNFR52G30BL NC010

PA6T/66-GF30 FR(16+72) Celanese

Product Texts

Zytel® HTN high performance polyamide resins feature high retention of properties upon exposure to elevated temperature, to high moisture, and to harsh chemical environments. Polymer families and grades of Zytel® HTN are tailored to optimize performance as well as processability.

Typical applications with Zytel® HTN include demanding applications in the automotive, electrical and electronics, domestic appliances, and construction industries.

Zytel® HTNFR52G30BL NC010 is a 30% glass reinforced, flame retardant, lubricated high performance polyamide resin that has been developed for connector applications.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
[C] Molding shrinkage, parallel	**0.3 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**0.8 / ***	%	ISO 294-4, 2577
ASTM Data			
Mold Shrinkage, MD	**0.002**	mm/mm	ASTM D 955
Mold Shrinkage, TD	**0.009**	mm/mm	ASTM D 955

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**12000 / 11000**	MPa	ISO 527
[C] Stress at break	**170 / 150**	MPa	ISO 527
[C] Strain at break	**2 / 2**	%	ISO 527
[C] Charpy impact strength, +23°C	**50 / 30**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**50 / 40**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**11 / -**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**11 / -**	kJ/m²	ISO 179/1eA
ASTM Data			
Tensile Strength	**172 / -**	MPa	ASTM D 638
Elongation at Break	**2.2 / -**	%	ASTM D 638
Flexural Modulus	**11380 / -**	MPa	ASTM D 790
Flexural Strength	**240 / -**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**115 / -**	J/m	ASTM D 256

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Glass transition temperature, 10°C/min	**90 / ***	°C	ISO 11357-1/-2
[C] Temp. of deflection under load, 1.80 MPa	**282 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**300 / ***	°C	ISO 75-1/-2
[C] Coeff. of linear therm. expansion, parallel	**20 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**63 / ***	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	**3.0 / ***	mm	-
Yellow Card available	**yes / ***	-	-
[C] Burning Behav. 5V at thickness h	**5VA / ***	class	IEC 60695-11-20
Thickness tested	**1.5 / ***	mm	-
Yellow Card available	**yes / ***	-	-
[C] Oxygen index	**42 / ***	%	ISO 4589-1/-2
ASTM Data			
UL 94 Flame rating	**V-0**	-	UL 94
Thickness tested	**1.5**	mm	-
DTUL @ 66 psi	**296**	°C	ASTM D 648
DTUL @ 264 psi	**278**	°C	ASTM D 648

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**3.5 / -**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**3.3 / -**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**50 / -**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**140 / -**	E-4	IEC 62631-2-1
[C] Volume resistivity	**>1E13 / -**	Ohm*m	IEC 62631-3-1
[C] Electric strength	**34 / -**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**525 / -**	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Density	**1620 / -**	kg/m³	ISO 1183
Density	**1620**	kg/m³	ASTM D 792

[C]: CAMPUS

Characteristics

Processing
Injection Molding

Delivery form
Pellets, Natural Color

Additives
Lubricants, Release agent

Special Characteristics
Flame retardant, Heat stabilized or stable to heat

Chemical Resistance
General Chemical Resistance

Applications
Automotive, Electrical and Electronical

Regional Availability
North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information

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