Zytel® HTN52G35EF BK420

PA6T/66-GF35 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® HTN52G35EF BK420 is a 35% glass reinforced, heat stabilized, lubricated high performance polyamide resin that can be molded in water heated molds, developed for electrical and electronics applications. It is also a PPA resin.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
[C] Molding shrinkage, parallel	**0.3 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**0.9 / ***	%	ISO 294-4, 2577
[C] Density of melt	**1100**	kg/m³	-
[C] Thermal conductivity of melt	**0.24**	W/(m K)	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**12000 / 12000**	MPa	ISO 527
[C] Stress at break	**210 / 180**	MPa	ISO 527
[C] Strain at break	**2.6 / 2.6**	%	ISO 527
[C] Charpy impact strength, +23°C	**60 / -**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**10 / -**	kJ/m²	ISO 179/1eA

[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	**285 / ***	°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	**65 / ***	E-6/K	ISO 11359-1/-2
[C] Burning rate, FMVSS, Thickness 1 mm	**44**	mm/min	ISO 3795 (FMVSS 302)
[C] Oxygen index	**23 / ***	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**4.3 / -**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**4.2 / -**	-	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**147 / -**	E-4	IEC 62631-2-1
[C] Volume resistivity	**>1E13 / -**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	*** / >1E15**	Ohm	IEC 62631-3-2
[C] Electric strength	**31 / 30**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**600 / -**	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Humidity absorption	**2 / ***	%	Sim. to ISO 62
[C] Density	**1450 / -**	kg/m³	ISO 1183

[C]: CAMPUS

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Viscosity number	**120 / ***	cm³/g	ISO 307, 1157, 1628

[C]: CAMPUS

Characteristics

Processing
Injection Molding

Delivery form
Pellets

Additives
Lubricants, Release agent

Special Characteristics
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

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.