Zytel® HTN50G35FWS BK083

PA6T/6I-GF35 Celanese

Product Texts

Zytel® HTN50G35FWS BK083 is a 35% glass reinforced, heat stabilized, lubricated, hydrolysis resistant high performance polyamide resin with improved fatigue and welding strength performance. It is also a PPA resin.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
[C] Molding shrinkage, parallel	**0.2 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**0.5 / ***	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**13000 / 13000**	MPa	ISO 527
[C] Stress at break	**240 / 210**	MPa	ISO 527
[C] Strain at break	**2.5 / 2.3**	%	ISO 527
[C] Charpy impact strength, +23°C	**85 / 69**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**14 / 12**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**13 / -**	kJ/m²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**299 / ***	°C	ISO 11357-1/-3
[C] Coeff. of linear therm. expansion, parallel	**18 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**57 / ***	E-6/K	ISO 11359-1/-2
[C] Burning rate, FMVSS, Thickness 1 mm	**2.3**	mm/min	ISO 3795 (FMVSS 302)

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**4.9 / -**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**4.7 / -**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**39 / -**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**152 / -**	E-4	IEC 62631-2-1
[C] Volume resistivity	**>1E13 / >1E13**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	*** / >1E15**	Ohm	IEC 62631-3-2
[C] Electric strength	**32 / 31**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**600 / -**	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Density	**1470 / -**	kg/m³	ISO 1183

[C]: CAMPUS

Characteristics

Processing
Injection Molding

Delivery form
Pellets

Additives
Lubricants, Release agent

Special Characteristics
Heat stabilized or stable to heat

Features
Fatigue Resistance, Weldable

Chemical Resistance
Hydrolytically Stable

Regional Availability
Europe, Asia Pacific

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.