Zytel® HTN53G50HSLR BK083

PA*-GF50 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® HTN53G50HSLR BK083 is a 50% glass reinforced, heat stabilized, lubricated high performance polyamide resin developed for moderate temperature structural applications requiring retention of high impact and stiffness.

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	**16000 / 15000**	MPa	ISO 527
[C] Stress at break	**250 / 220**	MPa	ISO 527
[C] Strain at break	**2.8 / 3.2**	%	ISO 527
[C] Tensile creep modulus, 1h	*** / 10000**	MPa	ISO 899-1
[C] Tensile creep modulus, 1000h	*** / 7500**	MPa	ISO 899-1
[C] Charpy impact strength, +23°C	**95 / 90**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**65 / 65**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**14 / 13**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**13 / 13**	kJ/m²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Glass transition temperature, 10°C/min	**85 / ***	°C	ISO 11357-1/-2
[C] Temp. of deflection under load, 1.80 MPa	**234 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**254 / ***	°C	ISO 75-1/-2
[C] Coeff. of linear therm. expansion, parallel	**17 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**59 / ***	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at 1.5 mm nom. thickn.	**HB / ***	class	IEC 60695-11-10
Thickness tested	**1.5 / ***	mm	-
Yellow Card available	**yes / ***	-	-
[C] Burning Behav. at thickness h	**HB / ***	class	IEC 60695-11-10
Thickness tested	**0.8 / ***	mm	-
Yellow Card available	**yes / ***	-	-
[C] Oxygen index	**27 / ***	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Volume resistivity	**1E13 / -**	Ohm*m	IEC 62631-3-1
[C] Comparative tracking index	**550 / -**	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Humidity absorption	**1.6 / ***	%	Sim. to ISO 62
[C] Density	**1590 / -**	kg/m³	ISO 1183

[C]: CAMPUS

Characteristics

Processing
Injection Molding

Delivery form
Pellets

Additives
Lubricants, Release agent

Special Characteristics
High impact or impact modified, 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.