Zytel® 77G33L BK031

PA612-GF33 Celanese

Product Texts

Zytel® LCPA long chain polyamide resins provide an innovative and growing portfolio of flexible polymers with excellent thermal, chemical, and hydrolysis resistance. The diverse selection of Zytel® LCPA grades is targeted for a range of performance characteristics, balancing temperature resistance, flexibility and low permeation.

Zytel® 77G33L BK031 is a 33% glass fiber reinforced, black polyamide 612 resin for injection molding.

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] Thermal conductivity of melt	**0.26**	W/(m K)	-
[C] Spec. heat capacity of melt	**2100**	J/(kg K)	-
[C] Ejection temperature	**210**	°C	-
ASTM Data			
Mold Shrinkage, MD	**0.001**	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	**9500 / 7900**	MPa	ISO 527
[C] Stress at break	**170 / 140**	MPa	ISO 527
[C] Strain at break	**3 / 3.2**	%	ISO 527
[C] Charpy notched impact strength, +23°C	**13 / -**	kJ/m²	ISO 179/1eA
ASTM Data			
Tensile Strength	**165 / -**	MPa	ASTM D 638
Elongation at Break	**3 / -**	%	ASTM D 638
Flexural Modulus	**8200 / -**	MPa	ASTM D 790
Flexural Strength	**245 / -**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**106 / -**	J/m	ASTM D 256

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**218 / ***	°C	ISO 11357-1/-3
[C] Glass transition temperature, 10°C/min	**65 / ***	°C	ISO 11357-1/-2
[C] Temp. of deflection under load, 1.80 MPa	**200 / ***	°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	**110 / ***	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	**0.7 / ***	mm	-
Yellow Card available	**yes / ***	-	-
[C] Burning rate, FMVSS, Thickness 1 mm	**23**	mm/min	ISO 3795 (FMVSS 302)
ASTM Data			
UL 94 Flame rating	**HB**	-	UL 94
Thickness tested	**1.5**	mm	-
DTUL @ 66 psi	**205**	°C	ASTM D 648
DTUL @ 264 psi	**190**	°C	ASTM D 648
Melting Temperature	**215**	°C	ASTM D 3418

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Volume resistivity	**2E12 / -**	Ohm*m	IEC 62631-3-1

[C] Surface resistivity	*** / >1E15**	Ohm	IEC 62631-3-2
[C] Electric strength	**46 / -**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**600 / -**	-	IEC 60112

[C]: CAMPUS

Other properties	**dry / cond**	**Unit**	**Test Standard**
[C] Humidity absorption	**0.7 / ***	%	Sim. to ISO 62
[C] Density	**1320 / -**	kg/m³	ISO 1183
Density	**1320**	kg/m³	ASTM D 792

[C]: CAMPUS

Material specific properties	**dry / cond**	**Unit**	**Test Standard**
ISO Data			
[C] Viscosity number	**100 / ***	cm³/g	ISO 307, 1157, 1628

[C]: CAMPUS

Characteristics

Processing
Injection Molding

Delivery form
Black

Features
Weldable

Applications
Automotive, Electrical and Electronical

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