

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® 77G43L BK031 is a 43% 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	0.8 / *	%	ISO 294-4, 2577
^[C] Ejection temperature	210	°C	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	12500 / -	MPa	ISO 527
^[C] Stress at break	200 / -	MPa	ISO 527
^[C] Strain at break	3 / -	%	ISO 527
^[C] Charpy notched impact strength, +23°C	17 / -	kJ/m ²	ISO 179/1eA

ASTM Data

Tensile Strength	185 / -	MPa	ASTM D 638
Elongation at Break	2.8 / -	%	ASTM D 638
Flexural Modulus	11000 / -	MPa	ASTM D 790
Flexural Strength	269 / -	MPa	ASTM D 790
Izod Impact notched, 1/8 in	170 / -	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	205 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	217 / *	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	14 / *	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 thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.7 / *	mm	-
Yellow Card available	yes / *	-	-
^[C] Burning rate, FMVSS, Thickness 1 mm	21	mm/min	ISO 3795 (FMVSS 302)

ASTM Data

UL 94 Flame rating	HB	-	UL 94
Thickness tested	1.5	mm	-
DTUL @ 66 psi	215	°C	ASTM D 648
DTUL @ 264 psi	205	°C	ASTM D 648
Melting Temperature	217	°C	ASTM D 3418

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Humidity absorption	0.7 / *	%	Sim. to ISO 62
^[C] Density	1420 / -	kg/m ³	ISO 1183
Density	1420	kg/m ³	ASTM D 792

[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