

Zytel® 77G43L BK031

LONG CHAIN POLYAMIDE RESIN

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 moulding.

Product information

Resin Identification	PA612-GF43	ISO 1043
Part Marking Code	>PA612-GF43<	ISO 11469
ISO designation	ISO 16396-PA612,GF43,M1CGR,S14-120	

Rheological properties

	dry/cond.		
Moulding shrinkage, parallel	0.3/-	%	ISO 294-4, 2577
Moulding shrinkage, normal	0.8/-	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	12500/-	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	200/-	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	3/-	%	ISO 527-1/-2
Flexural modulus	11000/-	MPa	ISO 178
Charpy notched impact strength, 23°C	17/-	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -40°C	16/-	kJ/m ²	ISO 179/1eA
Izod notched impact strength, 23°C	17/-	kJ/m ²	ISO 180/1A
Izod notched impact strength, -40°C	15.0/-	kJ/m ²	ISO 180/1A
Poisson's ratio	0.33/-		

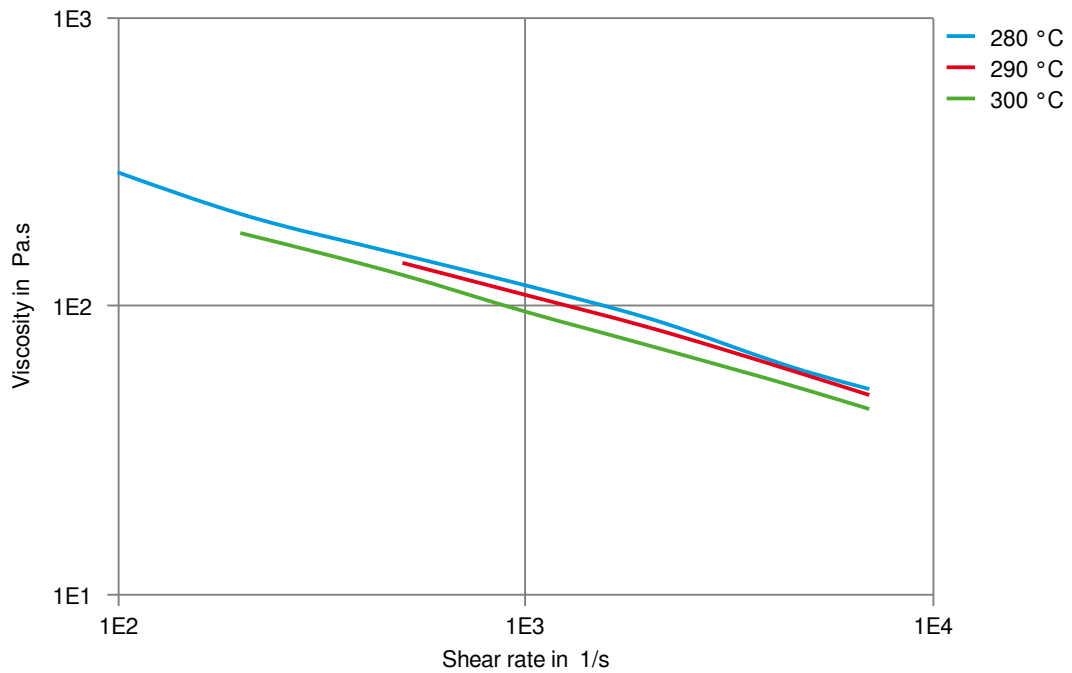
Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	218/*	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	65/55	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	205/*	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	217/*	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel, -40-23°C	21/*	E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	14/*	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, parallel, 55-160°C	13/*	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal, -40-23°C	75/*	E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	110/*	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal, 55-160°C	140/*	E-6/K	ISO 11359-1/-2
RTI, electrical, 0.75mm	105	°C	UL 746B
RTI, electrical, 1.5mm	120	°C	UL 746B
RTI, strength, 1.5mm	120/*	°C	UL 746B

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Viscosity-shear rate



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Shearstress-shear rate

