

CELANYL® B3 GF50 NC 1102

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Car industry, Household appliances, Electrical devices.

Product information

Resin Identification	PA6-GF50	ISO 1043
Part Marking Code	>PA6-GF50<	ISO 11469
Continuous Service Temperature	105 °C	IEC 60216-1

Rheological properties

	dry/cond.		
Viscosity number	140 / *	cm ³ /g	ISO 307, 1628
Moulding shrinkage range, parallel	0.1 - 0.4	%	ISO 294-4, 2577
Moulding shrinkage range, normal	0.5 - 0.8	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	16500 / -	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	235 / -	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.5 / -	%	ISO 527-1/-2
Charpy impact strength, 23 °C	N / -	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23 °C	18.5 / -	kJ/m ²	ISO 179/1eA
Ball indentation hardness, H 961/30	270 / -	MPa	ISO 2039-1
Poisson's ratio	0.33 / - ^[C]		
[C]: Calculated			

Thermal properties

	dry/cond.		
Melting temperature, 10 °C/min	225 / *	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	215 / *	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	220 / *	°C	ISO 75-1/-2

Flammability

	dry/cond.		
Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	IEC 60695-11-10
Glow Wire Flammability Index, 0.75mm	650 / -	°C	IEC 60695-2-12
Glow Wire Flammability Index, 3.0mm	650 / -	°C	IEC 60695-2-12

Electrical properties

	dry/cond.		
Volume resistivity	1E13 / -	Ohm.m	IEC 62631-3-1
Surface resistivity	* / 1E13	Ohm	IEC 62631-3-2
Electric strength	23 / -	kV/mm	IEC 60243-1
Comparative tracking index	550 / -		IEC 60112

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.1 / *	%	Sim. to ISO 62
Water absorption, 2mm	4.7 / *	%	Sim. to ISO 62
Density	1540 / -	kg/m ³	ISO 1183

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Injection

Drying Recommended	yes
Drying Temperature	80 °C
Drying Time, Dehumidified Dryer	2 - 4 h
Processing Moisture Content	≤0.15 %
Melt Temperature Optimum	260 °C
Min. melt temperature	240 °C
Max. melt temperature	290 °C
Screw tangential speed	≤0.2 m/s
Mold Temperature Optimum	80 °C
Min. mould temperature	60 °C
Max. mould temperature	120 °C

Characteristics

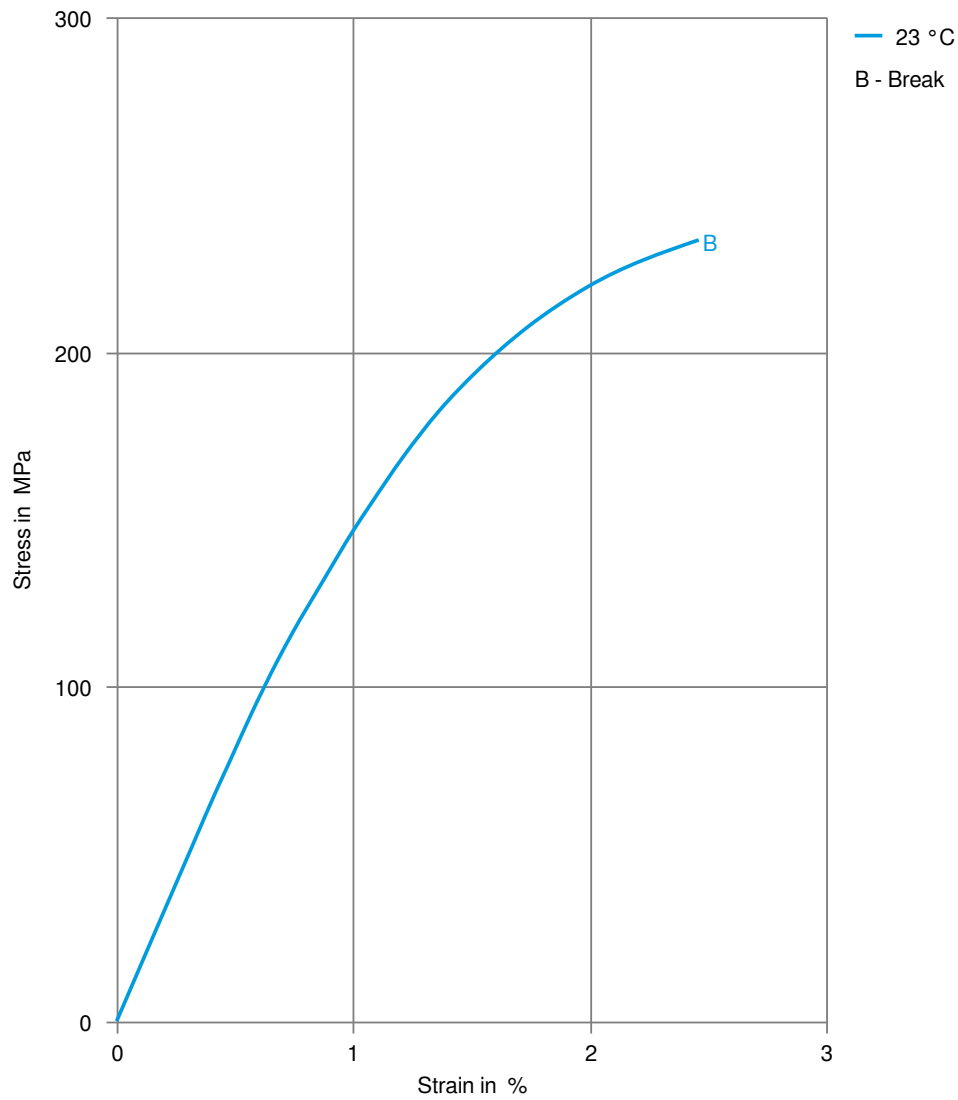
Processing

Injection Moulding

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Stress-strain



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Secant modulus-strain

