

CELANYL® B3 GB50 NC 1102

CELANYL®

Designed for any technical application requiring high dimensional stability, low warpage, and good surface quality. Easy processing.

Product information

Resin Identification	PA6-GB50	ISO 1043
Part Marking Code	>PA6-GB50<	ISO 11469
Continuous Service Temperature	95 °C	IEC 60216-1

Rheological properties

	dry/cond.		
Viscosity number	145/*	cm ³ /g	ISO 307, 1628
Moulding shrinkage range, parallel	0.7 - 1.1	%	ISO 294-4, 2577
Moulding shrinkage range, normal	0.7 - 1.1	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	5500/-	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	70/-	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.5/-	%	ISO 527-1/-2
Charpy impact strength, 23°C	28/-	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	26/-	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	3.5/-	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	2.5/-	kJ/m ²	ISO 179/1eA
Ball indentation hardness, H 961/30	200/-	MPa	ISO 2039-1
Poisson's ratio	0.35/- ^[C]		

[C]: Calculated

Thermal properties

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

Electrical properties

	dry/cond.		
Volume resistivity	1E13/-	Ohm.m	IEC 62631-3-1
Comparative tracking index	550/-		IEC 60112

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.2/*	%	Sim. to ISO 62
Water absorption, 2mm	5/*	%	Sim. to ISO 62
Density	1520/-	kg/m ³	ISO 1183

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

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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
Special characteristics	Heat stabilised or stable to heat, Low Warpage