Celanese
The chemistry inside innovation™

CELANYL® B3 HH J10 GF40 BK 9005/TG

CELANYL®

Suitable for any technical application, provide high rigidity and toughness. Improved surface quality.

Product information

Resin Identification	PA6-I-GF40		ISO 1043
Part Marking Code	>PA6-I-GF40<		ISO 11469
Continuous Service Temperature	120	°C	IEC 60216-1

Rheological properties

Moulding shrinkage range, parallel	0.2 - 0.5	%	ISO 294-4, 2577
Moulding shrinkage range, normal	0.5 - 0.8	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	10800 / 6000	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	165 / 110	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	3.5 / 8	%	ISO 527-1/-2
Charpy impact strength, 23°C	>80 / -	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	20 / 30	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	21 / -	kJ/m²	ISO 180/1A
Poisson's ratio	0.34 / 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, 1.8 MPa	195 / *	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	210 / *	°C	ISO 75-1/-2

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.3 / *	%	Sim. to ISO 62
Water absorption, 2mm	4.6 / *	%	Sim. to ISO 62
Density	1410 / -	kg/m³	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
Screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	80	°C
Min. mould temperature	50	°C
Max. mould temperature	120	°C

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Characteristics

Processing	Injection Moulding
Delivery form	Granules
Special characteristics	High impact or impact modified, Heat stabilised or stable to heat