Celanese
The chemistry inside innovation™

CELANYL® B3 HH J05 GF15 BK 9005/E

CELANYL®

Injection molding grade designed for Automotive parts requiring long term heat ageing resistance, medium impact and excellent surface quality.

Product information

Resin Identification	PA6-I-GF15		ISO 1043
Part Marking Code	>PA6-I-GF15<		ISO 11469
Continuous Service Temperature	125	°C	IEC 60216-1

Rheological properties

Moulding shrinkage range, parallel	0.5 - 0.8	%	ISO 294-4, 2577
Moulding shrinkage range, normal	0.8 - 1.1	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	4900 / -	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	100 / -	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	4 / -	%	ISO 527-1/-2
Flexural modulus	4600 / -	MPa	ISO 178
Flexural strength	140 / -	MPa	ISO 178
Charpy impact strength, 23°C	70 / -	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	69 / -	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	12 / -	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	5 / -	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	12 / -	kJ/m²	ISO 180/1A
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, 1.8 MPa	185 / *	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	205 / *	°C	ISO 75-1/-2

Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	HB / *	class	IEC 60695-11-10

Electrical properties

	dry/cond.		
Surface resistivity	* / 1E14	Ohm	IEC 62631-3-2
Electric strength	32.1 / -	kV/mm	IEC 60243-1
Comparative tracking index	400 / -		IEC 60112
Comparative tracking index, 100 drops	350		IEC 60112

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.9 / *	%	Sim. to ISO 62
Water absorption, 2mm	6.8 / *	%	Sim. to ISO 62
Density	1190 / -	kg/m³	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	50	°C
Max. mould temperature	120	°C

Characteristics

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