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	257	°F	IEC 60216-1

Rheological properties

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

Typical mechanical properties

	dry/cond.		
Tensile modulus	711000 / -	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	14500 / -	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	4 / -	%	ISO 527-1/-2
Flexural modulus	667000 / -	psi	ISO 178
Flexural strength	19600 / -	psi	ISO 178
Charpy impact strength, 23°C	33.3 / -	ftlb/in²	ISO 179/1eU
Charpy impact strength, -30°C	32.8 / -	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	5.71 / -	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -30°C	2.38 / -	ftlb/in²	ISO 179/1eA
Izod notched impact strength, 23°C	5.47 / -	ftlb/in²	ISO 180/1A

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	437 / *	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	365 / *	°F	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	401 / *	°F	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	815 / -	kV/in	IEC 60243-1
Comparative tracking index	400 / -		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	0.043 / -	lb/in³	ISO 1183

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Injection

Drying Recommended	yes	
Drying Temperature	176	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.15	%
Melt Temperature Optimum	500	°F
Min. melt temperature	464	°F
Max. melt temperature	554	°F
Max. screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	176	°F
Min. mold temperature	122	°F
Max. mold temperature	248	°F

Characteristics

Processing	Injection Molding
Special characteristics	High impact or impact modified, Heat stabilized or stable to heat

Revised: 2024-08-16 Source: Celanese Materials Database

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