Celanese
The chemistry inside innovation™

CELANYL® B3 HH GF35 BK 9005/E

CELANYL®

Car industry, Household appliances, Electrical devices.

Product information

Resin Identification	PA6-GF35		ISO 1043
Part Marking Code	>PA6-GF35<		ISO 11469
Continuous Service Temperature	130	°C	IEC 60216-1

Rheological properties

	dry/cond.		
Melt volume-flow rate	24 / *	cm^3/10min	ISO 1133
Temperature	270 / *	°C	
Load	5 / *	kg	
Viscosity number	140 / *	cm^3/g	ISO 307, 1628
Moulding shrinkage range, parallel	0.2 - 0.5	%	ISO 294-4, 2577
Moulding shrinkage range, normal	0.6 - 0.9	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	10800 / -	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	175 / -	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	3 / -	%	ISO 527-1/-2
Flexural modulus	9000 / -	MPa	ISO 178
Flexural strength	230 / -	MPa	ISO 178
Charpy impact strength, 23°C	90 / -	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, 23°C	13.5 / -	kJ/m^2	ISO 179/1eA
Izod notched impact strength, 23°C	12 / -	kJ/m^2	ISO 180/1A
Izod impact strength, 23°C	75 / -	kJ/m^2	ISO 180/1U
Ball indentation hardness, H 961/30	215 / -	MPa	ISO 2039-1
Poisson's ratio	0.34 / -[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	210 / *	°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 1.5mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	IEC 60695-11-10
Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.4 / *	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

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Electrical properties

	dry/cond.		
Volume resistivity	1E15 / -	Ohm.m	IEC 62631-3-1
Surface resistivity	* / 1E14	Ohm	IEC 62631-3-2
Electric strength	21 / -	kV/mm	IEC 60243-1
Comparative tracking index	500 / -		IEC 60112

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1 / *	%	Sim. to ISO 62
Water absorption, 2mm	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	60	°C
Max. mould temperature	120	°C

Characteristics

Processing	Injection Moulding
Delivery form	Granules
Special characteristics	Heat stabilised or stable to heat