Celanese
The chemistry inside innovation™

CELANYL® A3 GB30 BK 9005/U

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This compound is intended for injection molding. It is primarily designed for the Automotive Industry but also suitable for Electrical and Electronic or Industrial & Consumer applications.

Product information

Resin Identification	PA66-GB30		ISO 1043
Part Marking Code	>PA66-GB30<		ISO 11469
Continuous Service Temperature	110	°C	IEC 60216-1

Rheological properties

	dry/cond.		
Viscosity number	145 / *	cm^3/g	ISO 307, 1628
Moulding shrinkage range, parallel	1 - 1.3	%	ISO 294-4, 2577
Moulding shrinkage range, normal	1 - 1.3	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	4200 / -	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	75 / -	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	5 / -	%	ISO 527-1/-2
Charpy impact strength, 23°C	30 / -	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, 23°C	3 / -	kJ/m^2	ISO 179/1eA
Ball indentation hardness, H 961/30	185 / -	MPa	ISO 2039-1
Poisson's ratio	0.36 / -[C]		

[C]: Calculated

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	260 / *	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	200 / *	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	220 / *	°C	ISO 75-1/-2

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.5 / *	%	Sim. to ISO 62
Water absorption, 2mm	7 / *	%	Sim. to ISO 62
Density	1350 / -	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	295	°C
Min. melt temperature	285	°C
Max. melt temperature	305	°C
Screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	100	°C
Min. mould temperature	70	°C
Max. mould temperature	120	°C

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Characteristics

Processing	Injection Moulding
Special characteristics	Heat stabilised or stable to heat, High Flow