Celanese
The chemistry inside innovation™

CELANYL® A3 D10 BK 9005/R

CELANYL®

General purpose grade, good flowability, improved flexibility.

Product information

Resin Identification	PA66-I		ISO 1043
Part Marking Code	>PA66-I<		ISO 11469
Continuous Service Temperature	115	°C	IEC 60216-1

Rheological properties

	dry/cond.		
Viscosity number	140 / *	cm^3/g	ISO 307, 1628
Moulding shrinkage range, parallel	1.4 - 1.8	%	ISO 294-4, 2577
Moulding shrinkage range, normal	1.4 - 1.8	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	2450 / 2300	MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	65 / 55	MPa	ISO 527-1/-2
Tensile strain at break, 50mm/min	25 / -	%	ISO 527-1/-2
Flexural modulus	1850 / -	MPa	ISO 178
Charpy impact strength, 23°C	N / N	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, 23°C	8 / 8	kJ/m^2	ISO 179/1eA
Poisson's ratio	0.444 / -		

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	260 / *	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	85 / *	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	185 / *	°C	ISO 75-1/-2

Flammability

	dry/cond.		
Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	IEC 60695-11-10
FMVSS Class	B		ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	18.5	mm/min	ISO 3795 (FMVSS 302)

Electrical properties

	dry/cond.		
Comparative tracking index	600 / -		IEC 60112

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	2.1 / *	%	Sim. to ISO 62
Water absorption, 2mm	7.5 / *	%	Sim. to ISO 62
Density	1090 / -	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	290	°C

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Min. melt temperature	280	°C
Max. melt temperature	300	°C
Screw tangential speed	≤0.3	m/s
Mold Temperature Optimum	80	°C
Min. mould temperature	50	°C
Max. mould temperature	100	°C

Characteristics

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