Celanese
The chemistry inside innovation™

CELANYL® A3 H BK 9005/U

CELANYL®

Suitable for any field of application, this grade offers good mechanical performance, high productivity, easy processability for an aesthetically brilliant result.

Product information

Resin Identification	PA66		ISO 1043
Part Marking Code	>PA66<		ISO 11469
Continuous Service Temperature	120	°C	IEC 60216-1

Rheological properties

	dry/cond.		
Viscosity number	140 / *	cm^3/g	ISO 307, 1628
Moulding shrinkage range, parallel	1.5 - 1.9	%	ISO 294-4, 2577
Moulding shrinkage range, normal	1.5 - 1.9	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	3250 / -	MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	85 / -	MPa	ISO 527-1/-2
Tensile strain at break, 50mm/min	5 / -	%	ISO 527-1/-2
Flexural modulus	3300 / 1200	MPa	ISO 178
Flexural stress at 3.5%	105 / -	MPa	ISO 178
Charpy impact strength, 23°C	40 / -	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, 23°C	3 / -	kJ/m^2	ISO 179/1eA
Hardness, Rockwell, M-scale	89 / -		ISO 2039-2
Poisson's ratio	0.37 / -[C]		

[C]: Calculated

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	265 / *	°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	200 / *	°C	ISO 75-1/-2

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	2.4 / *	%	Sim. to ISO 62
Water absorption, 2mm	8.5 / *	%	Sim. to ISO 62
Density	1130 / -	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
Min. melt temperature	280	°C
Max. melt temperature	300	°C
Screw tangential speed	≤0.4	m/s
Mold Temperature Optimum	70	°C
Min. mould temperature	50	°C
Max. mould temperature	90	°C

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Characteristics

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