CELANYL® A3 TM1 BK 9005/MM

CELANYL®

Easy flowing, self lubricated grade for use in tribological systems.

Product information

Resin Identification	(PA66+PA6)		ISO 1043
Part Marking Code	>(PA66+PA6)<		ISO 11469
Continuous Service Temperature	185	°F	IEC 60216-1

Rheological properties

	dry/cond.		
Viscosity number	3880 / *	in³/lb	ISO 307, 1628
Molding shrinkage range, parallel	0.6 - 1.2	%	ISO 294-4, 2577
Molding shrinkage range, normal	0.6 - 1.2	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	493000 / -	psi	ISO 527-1/-2
Tensile stress at yield, 50mm/min	12000 / -	psi	ISO 527-1/-2
Tensile strain at break, 50mm/min	9 / -	%	ISO 527-1/-2
Charpy impact strength, 23°C	>50 / -	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	1.43 / -	ftlb/in²	ISO 179/1eA
Ball indentation hardness, H 961/30	21000 / -	psi	ISO 2039-1

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	500 / *	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	185 / *	°F	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	392 / *	°F	ISO 75-1/-2

Flammability

FMVSS Class	DNI		ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm		in/min	ISO 3795 (FMVSS 302)

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	2.6 / *	%	Sim. to ISO 62
Water absorption, 2mm	8.6 / *	%	Sim. to ISO 62
Density	0.0412 / -	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	176	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.15	%
Melt Temperature Optimum	554	°F
Min. melt temperature	536	°F
Max. melt temperature	572	°F
Max. screw tangential speed	≤0.4	m/s
Mold Temperature Optimum	158	°F
Min. mold temperature	122	°F
Max. mold temperature	194	°F

Revised: 2026-08-12 Source: Celanese Materials Database

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Characteristics

Processing	Injection Molding
Additives	Contains Molybdenum Disulfide
Special characteristics	Heat stabilized or stable to heat, Low wear / Low friction, High Flow

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