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	248	°F	IEC 60216-1

Rheological properties

	dry/cond.		
Viscosity number	3880 / *	in³/lb	ISO 307, 1628
Molding shrinkage range, parallel	1.5 - 1.9	%	ISO 294-4, 2577
Molding shrinkage range, normal	1.5 - 1.9	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	471000 / -	psi	ISO 527-1/-2
Tensile stress at yield, 50mm/min	12000 / -	psi	ISO 527-1/-2
Tensile strain at break, 50mm/min	5 / -	%	ISO 527-1/-2
Flexural modulus	479000 / 174000	psi	ISO 178
Flexural stress at 3.5%	15200 / -	psi	ISO 178
Charpy impact strength, 23°C	19 / -	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	1.43 / -	ftlb/in²	ISO 179/1eA
Hardness, Rockwell, M-scale	89 / -		ISO 2039-2

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	509 / *	°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

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	2.4 / *	%	Sim. to ISO 62
Water absorption, 2mm	8.5 / *	%	Sim. to ISO 62
Density	0.0408 / -	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: 2025-04-02 Source: Celanese Materials Database

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Characteristics

Processing	Injection Molding
Special characteristics	Heat stabilized or stable to heat

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