CELANYL® A3 WR GF30 NC 1102/E

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Designed for any technical application requiring long term heat resistance packed with prime quality mechanical performances.

Product information

Resin Identification	PA66-GF30		ISO 1043
Part Marking Code	>PA66-GF30<		ISO 11469
Continuous Service Temperature	266	°F	IEC 60216-1

Rheological properties

Molding shrinkage range, parallel	0.3 - 0.6	%	ISO 294-4, 2577
Molding shrinkage range, normal	0.6 - 0.9	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	1.42E6 / -	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	26800 / -	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.5 / -	%	ISO 527-1/-2
Flexural modulus	1.23E6 / -	psi	ISO 178
Flexural strength	37700 / -	psi	ISO 178
Charpy impact strength, 23°C	26.2 / -	ftlb/in²	ISO 179/1eU
Charpy impact strength, -30°C	20 / -	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	6.18 / -	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -30°C	4.76 / -	ftlb/in²	ISO 179/1eA
Izod notched impact strength, 23°C	5.23 / -	ftlb/in²	ISO 180/1A
Izod notched impact strength, -30°C	3.81 / -	ftlb/in²	ISO 180/1A

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	509 / *	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	482 / *	°F	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	500 / *	°F	ISO 75-1/-2

Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	HB / *	class	IEC 60695-11-10
Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.0157 / *	in	IEC 60695-11-10
UL recognition	yes / *		UL 94
FMVSS Class	B		ISO 3795 (FMVSS 302)

Electrical properties

	dry/cond.		
Volume resistivity	1E13 / -	Ohm.m	IEC 62631-3-1
Surface resistivity	* / 1E13	Ohm	IEC 62631-3-2

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.7 / *	%	Sim. to ISO 62
Water absorption, 2mm	5.9 / *	%	Sim. to ISO 62
Density	0.0495 / -	lb/in³	ISO 1183

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Injection

Drying Recommended	yes	
Drying Temperature	176	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.15	%
Melt Temperature Optimum	563	°F
Min. melt temperature	545	°F
Max. melt temperature	581	°F
Max. screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	212	°F
Min. mold temperature	158	°F
Max. mold temperature	248	°F

Characteristics

Processing	Injection Molding
Special characteristics	Heat stabilized or stable to heat

Chemical Media Resistance

Salt solutions

- ✔ Sodium Hypochlorite solution (10% by mass), 23 °C

Symbols used:

✔ possibly resistant
Defined as: Supplier has sufficient indication that contact with chemical can be potentially accepted under the intended use conditions and expected service life. Criteria for assessment have to be indicated (e.g. surface aspect, volume change, property change).

✘ not recommended - see explanation
Defined as: Not recommended for general use. However, short-term exposure under certain restricted conditions could be acceptable (e.g. fast cleaning with thorough rinsing, spills, wiping, vapor exposure).

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