CELANYL® A3 GF30 NC 1102/X

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General purpose compound for injection molding, suitable for Automotive, E&E and Industrial & Consumer applications. Improved flowability.

Product information

Resin Identification	PA66-GF30		ISO 1043
Part Marking Code	>PA66-GF30<		ISO 11469
Continuous Service Temperature	239	°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	1.38E6 / -	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	26100 / -	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.8 / -	%	ISO 527-1/-2
Flexural modulus	1.23E6 / -	psi	ISO 178
Flexural strength	37000 / -	psi	ISO 178
Charpy impact strength, 23°C	26.2 / -	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	5.71 / -	ftlb/in²	ISO 179/1eA
Izod notched impact strength, 23°C	5.23 / -	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	0.0272 / *	in	IEC 60695-11-10
UL recognition	yes / *		UL 94
Glow Wire Flammability Index, 0.75mm	1200 / -	°F	IEC 60695-2-12
Hot Wire Ignition, 0.75mm	PLC 4 / *	s	UL 746A
Hot Wire Ignition, 1.5mm	PLC 1 / *	s	UL 746A
Hot Wire Ignition, 3mm	PLC 0 / *	s	UL 746A
FMVSS Class	B		ISO 3795 (FMVSS 302)

Electrical properties

	dry/cond.		
Volume resistivity	>1E13 / -	Ohm.m	IEC 62631-3-1
Electric strength	406 / -	kV/in	IEC 60243-1
Comparative tracking index	600 / -		IEC 60112
Arc Resistance Performance Level Category	PLC 6 / *	class	UL 746B
High Amperage Arc Ignition Category, 1.5 mm	PLC 0 / *	class	UL 746A

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Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.5 / *	%	Sim. to ISO 62
Water absorption, 2mm	5.6 / *	%	Sim. to ISO 62
Density	0.0491 / -	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	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, High Flow

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