Celanese
The chemistry inside innovation™

CELANYL® A3 GF30 NC 1102/Z

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

Product information

Resin Identification	PA66-GF30		ISO 1043
Part Marking Code	>PA66-GF30<		ISO 11469
Continuous Service Temperature	115	°C	IEC 60216-1

Rheological properties

Moulding shrinkage range, parallel	0.3 - 0.7	%	ISO 294-4, 2577
Moulding shrinkage range, normal	0.7 - 0.9	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	9500 / -	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	180 / -	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.5 / -	%	ISO 527-1/-2
Flexural modulus	8500 / -	MPa	ISO 178
Flexural strength	260 / -	MPa	ISO 178
Charpy impact strength, 23°C	55 / -	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	12 / -	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	11 / -	kJ/m²	ISO 180/1A
Poisson's ratio	0.34 / -[C]		

[C]: Calculated

Thermal properties

	dry/cond.		
Temperature of deflection under load, 1.8 MPa	250 / *	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	260 / *	°C	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	0.69 / *	mm	IEC 60695-11-10
UL recognition	yes / *		UL 94
Glow Wire Flammability Index, 0.75mm	650 / -	°C	IEC 60695-2-12
Glow Wire Flammability Index, 3.0mm	650 / -	°C	IEC 60695-2-12
FMVSS Class	B		ISO 3795 (FMVSS 302)
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

Electrical properties

	dry/cond.		
Volume resistivity	1E12 / -	Ohm.m	IEC 62631-3-1
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	1370 / -	kg/m³	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	295	°C
Min. melt temperature	285	°C
Max. melt temperature	305	°C
Screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	100	°C
Min. mould temperature	70	°C
Max. mould temperature	120	°C

Characteristics

Processing	Injection Moulding
Delivery form	Granules