



CELANYL® A3 GF60 NC 1102/Z

CELANYL®

Car industry, Household appliances, Electrical devices.

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Randon R	Resin Identification	PA66-GF60	า	ISO 1043
Rheological properties				
Melt volume-flow rate 10/* cm³/10min ISO 1133 Temperature Load 57/* kg °C Moulding shrinkage, parallel 0.2/- % ISO 294-4, 2577 Moulding shrinkage, normal 0.3/- % ISO 294-4, 2577 Moulding shrinkage, normal 0.3/- % ISO 294-4, 2577 Typical mechanical properties Tensile modulus 20000/- MPa ISO 527-1/-2 Tensile strain at break, 50mm/min 240/- MPa ISO 527-1/-2 Tensile strain at break, 50mm/min 1.9/- % ISO 527-1/-2 Charpy impact strength, 23°C 80/- kJ/m² ISO 179/1eU Charpy notched impact strength, 23°C 13/- kJ/m² ISO 179/1eA Izod notched impact strength, 23°C 14/- kJ/m² ISO 180/1A Izod inpact strength, 23°C 69/- kJ/m² ISO 180/1A Poisson's ratio 0.33/-ICI ISO 180/1A IC]: Calculated Thermal properties dry/cond. Melting temperature of deflection under load, 0.45 MPa 262/* °C ISO 1357-1/-3 Temperature of deflection under load, 0.45 MPa 500/- IEC 60112	Tart Marking Code	21 7100 GI 000		100 11403
Temperature 270/* °C Load 5/* kg Moulding shrinkage, parallel 0.2/- % ISO 294-4, 2577 Moulding shrinkage, normal 0.3/- % ISO 294-4, 2577 Typical mechanical properties Tensile modulus 20000/- MPa ISO 527-1/-2 Tensile stress at yield, 50mm/min 240/- MPa ISO 527-1/-2 Tensile strain at break, 50mm/min 1.9/- % ISO 527-1/-2 Charpy impact strength, 23°C 80/- kJ/m² ISO 179/1eU Charpy impact strength, 23°C 13/- kJ/m² ISO 179/1eA Izod notched impact strength, 23°C 14/- kJ/m² ISO 180/1A Izod impact strength, 23°C 69/- kJ/m² ISO 180/1A Poisson's ratio 0.33/-ICI ISO 180/1A IC]: Calculated Thermal properties dry/cond. Melting temperature, 10°C/min 262/* °C ISO 11357-1/-3 Temperature of deflection under load, 0.45 MPa 500/- IEC 60112 Ph	Rheological properties	dry/cond.		
Load 5 /* kg Moulding shrinkage, parallel 0.2 /- % ISO 294-4, 2577 Moulding shrinkage, normal 0.3 /- % ISO 294-4, 2577 Moulding shrinkage, normal 0.3 /- % ISO 294-4, 2577 ISO 527-1/-2 ISO 180 527-1/-2 ISO 180 527-1/-2 ISO 180 527-1/-2 ISO 527-1/-2 ISO 527-1/-2 ISO 179/1eA ISO 180/1U ISO	Melt volume-flow rate	10/*	cm ³ /10min	ISO 1133
Moulding shrinkage, parallel Moulding shrinkage, normal 0.2/- % ISO 294-4, 2577 Typical mechanical properties dry/cond. Tensile modulus 20000/- MPa ISO 527-1/-2 Tensile stress at yield, 50mm/min 240/- MPa ISO 527-1/-2 Tensile strain at break, 50mm/min 1.9/- % ISO 527-1/-2 Charpy impact strength, 23°C 80/- kJ/m² ISO 179/1eU Charpy notched impact strength, 23°C 13/- kJ/m² ISO 179/1eU Lod notched impact strength, 23°C 14/- kJ/m² ISO 180/1b Izod impact strength, 23°C 69/- kJ/m² ISO 180/1U Poisson's ratio 0.33/_ICI ISO 180/1U [C]: Calculated dry/cond. ISO 11357-1/-3 Thermal properties dry/cond. ISO 1557-1/-2 Electrical properties dry/cond. IEC 60112 Physical/Other properties dry/cond. IEC 60112 Physical/Other properties dry/cond. Sim. to ISO 62 Water absorption, 2mm 3.2/* % Sim. to ISO 62 Water absorption, 2mm 3.2/* % Sim. to ISO 62 <td>Temperature</td> <td>270/*</td> <td>°C</td> <td></td>	Temperature	270/*	°C	
Moulding shrinkage, normal 0.3/- % ISO 294-4, 2577 Typical mechanical properties dry/cond. dry/cond. Tensile modulus 20000/- MPa ISO 527-1/-2 Tensile stress at yield, 50mm/min 240/- MPa ISO 527-1/-2 Tensile strain at break, 50mm/min 1.9/- % ISO 527-1/-2 Charpy impact strength, 23°C 80/- kJ/m² ISO 179/1eU Charpy notched impact strength, 23°C 13/- kJ/m² ISO 179/1eA Izod notched impact strength, 23°C 69/- kJ/m² ISO 180/1A Izod impact strength, 23°C 69/- kJ/m² ISO 180/1D Poisson's ratio 0.33/-ICI ISO 180/1U ISO 180/1U Thermal properties Melting temperature, 10°C/min 262/* °C ISO 11357-1/-3 Temperature of deflection under load, 0.45 MPa 260/* °C ISO 75-1/-2 Electrical properties dry/cond. IEC 60112 Physical/Other properties dry/cond. IEC 60112 Humidity absorption, 2mm 0.8/*	Load	5/*	kg	
Typical mechanical properties dry/cond. Tensile modulus 20000/- MPa ISO 527-1/-2 Tensile stress at yield, 50mm/min 240/- MPa ISO 527-1/-2 Tensile strain at break, 50mm/min 1.9/- % ISO 527-1/-2 Charpy impact strength, 23°C 80/- kJ/m² ISO 179/1eU Charpy notched impact strength, 23°C 13/- kJ/m² ISO 179/1eA Lod notched impact strength, 23°C 69/- kJ/m² ISO 180/1A Izod impact strength, 23°C 69/- kJ/m² ISO 180/1A Poisson's ratio 0.33/-ICI ISO 180/1U [C]: Calculated 0.33/-ICI ISO 180/1U Thermal properties Melting temperature, 10°C/min 262/* °C ISO 11357-1/-3 Temperature of deflection under load, 0.45 MPa 260/* °C ISO 150/15-1/-2 Electrical properties Comparative tracking index 500/- IEC 60112 Physical/Other properties Humidity absorption, 2mm 0.8/* % Sim. to ISO 62 Water absorption, 2mm 3.2/* % Sim. to ISO 62	Moulding shrinkage, parallel	0.2/-	%	ISO 294-4, 2577
Tensile modulus 20000 /- MPa ISO 527-1/-2 Tensile stress at yield, 50mm/min 240 /- MPa ISO 527-1/-2 Tensile strain at break, 50mm/min 1.9 /- % ISO 527-1/-2 Charpy impact strength, 23 °C 80 /- kJ/m² ISO 179/1eU Charpy notched impact strength, 23 °C 13 /- kJ/m² ISO 179/1eA Izod notched impact strength, 23 °C 14 /- kJ/m² ISO 180/1A Izod impact strength, 23 °C 69 /- kJ/m² ISO 180/1U Poisson's ratio 0.33 /- ICI ISO 180/1U [C]: Calculated 0.33 /- ICI ISO 11357-1/-3 Thermal properties dry/cond. ISO 11357-1/-3 Temperature of deflection under load, 0.45 MPa 260 /* °C ISO 11357-1/-3 Electrical properties dry/cond. IEC 60112 Physical/Other properties dry/cond. Humidity absorption, 2mm 0.8 /* % Sim. to ISO 62 Water absorption, 2mm 3.2 /* % Sim. to ISO 62	Moulding shrinkage, normal	0.3/-	%	ISO 294-4, 2577
Tensile stress at yield, 50mm/min 240/- MPa ISO 527-1/-2 Tensile strain at break, 50mm/min 1.9/- % ISO 527-1/-2 Charpy impact strength, 23°C 80/- kJ/m² ISO 179/1eU Charpy notched impact strength, 23°C 13/- kJ/m² ISO 179/1eA Izod notched impact strength, 23°C 14/- kJ/m² ISO 180/1A Izod impact strength, 23°C 69/- kJ/m² ISO 180/1U Poisson's ratio 0.33/-ICI ISO 180/1U [C]: Calculated Thermal properties dry/cond. ISO 11357-1/-3 Melting temperature, 10°C/min 262/* °C ISO 11357-1/-3 Temperature of deflection under load, 0.45 MPa 260/* °C ISO 75-1/-2 Electrical properties dry/cond. IEC 60112 Physical/Other properties dry/cond. Sim. to ISO 62 Humidity absorption, 2mm 0.8/* % Sim. to ISO 62 Water absorption, 2mm 3.2/* % Sim. to ISO 62	Typical mechanical properties	dry/cond.		
Tensile strain at break, 50mm/min 1.9/- % ISO 527-1/-2 Charpy impact strength, 23°C 80/- kJ/m² ISO 179/1eU Charpy notched impact strength, 23°C 13/- kJ/m² ISO 179/1eA Izod notched impact strength, 23°C 14/- kJ/m² ISO 180/1A Izod impact strength, 23°C 69/- kJ/m² ISO 180/1U Poisson's ratio 0.33/-ICI ISO 180/1U [C]: Calculated Thermal properties dry/cond. Melting temperature, 10°C/min 262/* °C ISO 11357-1/-3 Temperature of deflection under load, 0.45 MPa 260/* °C ISO 75-1/-2 Electrical properties dry/cond. Comparative tracking index 500/- IEC 60112 Physical/Other properties dry/cond. Humidity absorption, 2mm 0.8/* % Sim. to ISO 62 Water absorption, 2mm 3.2/* % Sim. to ISO 62	Tensile modulus	20000/-	MPa	ISO 527-1/-2
Charpy impact strength, 23°C Charpy notched impact strength, 23°C Charpy notched impact strength, 23°C Izod notched impact strength, 23°C Izod notched impact strength, 23°C Izod impact strength, 23°C Izod impact strength, 23°C Poisson's ratio Cig: Calculated Thermal properties Melting temperature, 10°C/min Temperature of deflection under load, 0.45 MPa Thermal properties dry/cond. Electrical properties dry/cond. Comparative tracking index Thysical/Other properties dry/cond. Humidity absorption, 2mm 0.8/* Water absorption, 2mm 0.8/* Water absorption, 2mm 3.2/* Windle KJ/m² ISO 179/1eU KJ/m² ISO 180/1A ISO 180/1D ISO 11357-1/-3 ISO 11357-1/-3 IEC 60112	Tensile stress at yield, 50mm/min	240/-	MPa	ISO 527-1/-2
Charpy notched impact strength, 23°C Izod notched impact strength, 23°C Izod notched impact strength, 23°C Izod impact strength, 23°C Poisson's ratio [C]: Calculated Thermal properties Melting temperature, 10°C/min Temperature of deflection under load, 0.45 MPa Comparative tracking index Comparative tracking index Thysical/Other properties dry/cond. Comparative tracking index Comparative tracking index Comparative tracking index Day/cond. Humidity absorption, 2mm O.8/* Water absorption, 2mm O.8/* Water absorption, 2mm O.8/* Water absorption, 2mm O.8/* Sim. to ISO 62 Sim. to ISO 62 Sim. to ISO 62	Tensile strain at break, 50mm/min	1.9/-	%	ISO 527-1/-2
Izod notched impact strength, 23°C Izod impact strength, 23°C Izod impact strength, 23°C Poisson's ratio [C]: Calculated Thermal properties Melting temperature, 10°C/min Temperature of deflection under load, 0.45 MPa Comparative tracking index Thycond. Comparative tracking index Ty/cond. Comparative tracking index Comparative tracking index Description of the comparative of the comparative tracking index Comparative tracking index Description of the comparative tracking index Sim. to ISO 62 Water absorption, 2mm Comparative tracking index Sim. to ISO 62 Sim. to ISO 62	Charpy impact strength, 23°C	80/-	kJ/m²	ISO 179/1eU
Izod impact strength, 23 °C Poisson's ratio [C]: Calculated Thermal properties Melting temperature, 10 °C/min Temperature of deflection under load, 0.45 MPa Comparative tracking index Thycond. Comparative tracking index Comparative tracking index Electrical properties Comparative tracking index Sim. to ISO 62 Water absorption, 2mm 3.2/* Sim. to ISO 62	Charpy notched impact strength, 23°C	13/-	kJ/m²	ISO 179/1eA
Poisson's ratio [C]: Calculated Thermal properties Melting temperature, 10 ° C/min Temperature of deflection under load, 0.45 MPa Electrical properties Comparative tracking index Thysical/Other properties Humidity absorption, 2mm Water absorption, 2mm 0.33/_[C] 0.33	Izod notched impact strength, 23°C	14/-	kJ/m²	ISO 180/1A
[C]: Calculated Thermal properties Melting temperature, 10 ° C/min Temperature of deflection under load, 0.45 MPa Electrical properties Comparative tracking index Comparative tracking index Comparative tracking index Melting temperature, 10 ° C/min 262 /* ° C Godon - God			kJ/m²	ISO 180/1U
Thermal properties Melting temperature, 10 ° C/min Temperature of deflection under load, 0.45 MPa Z60/* °C ISO 11357-1/-3 Z60/* °C ISO 75-1/-2 Electrical properties dry/cond. Comparative tracking index Dhysical/Other properties dry/cond. Humidity absorption, 2mm Ary/cond. Humidity absorption, 2mm Ary/cond. Sim. to ISO 62 Water absorption, 2mm 3.2/* % Sim. to ISO 62	Poisson's ratio	0.33/- ^[C]		
Melting temperature, 10 °C/min Temperature of deflection under load, 0.45 MPa 262/* °C Temperature of deflection under load, 0.45 MPa 260/* °C ISO 11357-1/-3 ISO 75-1/-2 Electrical properties dry/cond. Comparative tracking index 500/- IEC 60112 Physical/Other properties dry/cond. Humidity absorption, 2mm 0.8/* % Sim. to ISO 62 Water absorption, 2mm 3.2/* %	[C]: Calculated			
Temperature of deflection under load, 0.45 MPa 260/* °C ISO 75-1/-2 Electrical properties Comparative tracking index 500/- IEC 60112 Physical/Other properties dry/cond. Humidity absorption, 2mm 0.8/* % Sim. to ISO 62 Water absorption, 2mm 3.2/* %	Thermal properties	dry/cond.		
Temperature of deflection under load, 0.45 MPa 260/* °C ISO 75-1/-2 Electrical properties dry/cond. Comparative tracking index 500/- IEC 60112 Physical/Other properties dry/cond. Humidity absorption, 2mm 0.8/* % Sim. to ISO 62 Water absorption, 2mm 3.2/* % Sim. to ISO 62	Melting temperature, 10°C/min	262/*	°C	ISO 11357-1/-3
Comparative tracking index 500/- IEC 60112 Physical/Other properties dry/cond. Humidity absorption, 2mm 0.8/* % Sim. to ISO 62 Water absorption, 2mm 3.2/* % Sim. to ISO 62	•	260/*	°C	
Physical/Other properties Humidity absorption, 2mm 0.8/* Water absorption, 2mm 3.2/* % Sim. to ISO 62 Sim. to ISO 62	Electrical properties	dry/cond.		
Physical/Other properties Humidity absorption, 2mm 0.8/* Water absorption, 2mm 3.2/* % Sim. to ISO 62 Sim. to ISO 62	Comparative tracking index	500/-		IEC 60112
Humidity absorption, 2mm 0.8/* % Sim. to ISO 62 Water absorption, 2mm 3.2/* % Sim. to ISO 62	Comparative tracking index	0007		120 001 12
Water absorption, 2mm 3.2/* % Sim. to ISO 62	Physical/Other properties	dry/cond.		
	Humidity absorption, 2mm	0.8/*	%	Sim. to ISO 62
Density 1690/- kg/m³ ISO 1183	Water absorption, 2mm			
	Density	1690/-	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	S
Mold Temperature Optimum	100 °C)

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Revised: 2024-08-16 Source: Celanese Materials Database





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Min. mould temperature 70 °C Max. mould temperature 120 °C

Characteristics

Processing Injection Moulding

Special characteristics Heat stabilised or stable to heat, High Flow

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Revised: 2024-08-16 Source: Celanese Materials Database

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