Celanese
The chemistry inside innovation™

CELANYL® A3 HH GF20 NC 1102/HA

CELANYL®

Designed for technical application in automotive, suitable for any application that require long term heat ageing resistance.

Product information

Resin Identification	PA66-GF20		ISO 1043
Part Marking Code	>PA66-GF20<		ISO 11469
Continuous Service Temperature	140	°C	IEC 60216-1

Rheological properties

	dry/cond.		
Moulding shrinkage, parallel	0.5 / -	%	ISO 294-4, 2577
Moulding shrinkage, normal	0.9 / -	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	7000 / -	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	135 / -	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.8 / -	%	ISO 527-1/-2
Flexural modulus	6000 / -	MPa	ISO 178
Flexural strength	180 / -	MPa	ISO 178
Charpy impact strength, 23°C	40 / -	kJ/m²	ISO 179/1eU
Izod notched impact strength, 23°C	6.5 / -	kJ/m²	ISO 180/1A
Poisson's ratio	0.35 / -[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	255 / *	°C	ISO 75-1/-2

Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	IEC 60695-11-10
Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	IEC 60695-11-10
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)

Electrical properties

	dry/cond.		
Volume resistivity	1E13 / -	Ohm.m	IEC 62631-3-1
Surface resistivity	* / 1E13	Ohm	IEC 62631-3-2
Electric strength	21 / -	kV/mm	IEC 60243-1
Comparative tracking index	450 / -		IEC 60112

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	2 / *	%	Sim. to ISO 62
Water absorption, 2mm	6.5 / *	%	Sim. to ISO 62
Density	1270 / -	kg/m³	ISO 1183

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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
Special characteristics	Heat stabilised or stable to heat

Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
VW Group	VW 50127	*Best Fitting Grade To PA66-5, Not Officially Approved