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DOMO caring is our formula

TECHNICAL DATA SHEET

TECHNYL A 219 V50 NC

DOMAMID 66G50H1 NC

Polyamide 66, 50% glass fiber reinforced, heat-aging stabilized, for injection moulding

General

Certifications	RoHS	
Polymer type	PA66	
Feature	heat-aging stabilized organic heat stabilized	high stiffness
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA66-GF50
ISO 16396 designation	PA66,GF50,MH,S14-160

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.57
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.6 - 1.7
Water absorption	24 hr, 23°C	ISO 62	%	0.6
Water absorption, saturation			%	3.7
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.1 - 0.3
Molding shrinkage, normal		ISO 294-4, 2577	%	0.3 - 0.5
Viscosity number	96% H2SO4	ISO 307	cm³/g	145.0

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	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	16000 / 12500
Stress at break	5 mm/min	ISO 527-1/-2	MPa	230 / 170
Strain at break	5 mm/min	ISO 527-1/-2	%	2.2 / 3.3
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	14500 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	330 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	100 / 120
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	17 / 30
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	90 / 115
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	16 / 30

: conditioned according to ISO 1110

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	262
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	260
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	255
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	255

	Condition	Standard	Unit	Value
Burning behaviour				
Flammability, 0.75 mm	0.75 mm	UL 94		HB
Glow-wire flammability index, GWFI	1-3 mm	IEC 60695-2-12	°C	>= 650
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

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	Condition	Standard	Unit	Value

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	1.0E13
Comparative tracking index	Solution A	IEC 60112	V	500.0
CTI performance level category		Sol A		PLC 1

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Recommended melt temperature	270 - 290 °C
Recommended mould temperature	90 - 110 °C

Injection notes

The material is supplied in airtight bags, ready for use.,In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point minimum -20°C.,Recommended time 2-4h.

Injection advice

For reinforced polyamides, Domo recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 /1.2379 (DIN Norm). In the case of high requirements on surface quality a mould temperature of up to 120°C can be considered.,The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design.