

TECHNICAL DATA SHEET

TECHNYL A 219 V50 NC  
(Previously DOMAMID 66G50H1 NC)

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

General

Feature	Heat-aging stabilized
Polymer type	PA66 (Polyamide 66)
Processing technology	Injection molding
Certification	RoHS

Product identification

ISO 1043 abbreviation	PA66-GF50
ISO 16396 designation	PA66,GF50,M1H,\$14-160

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm³	1.57
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

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

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	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

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+013
Comparative tracking index	Solution A	IEC 60112	V	500
CTI performance level category		Sol A		PLC 1

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

Test run at 23°C if not differently specified, DAM state (dry as moulded), valid for natural colored products.  
\*: conditioned according to ISO 1110

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

These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part.

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