

TECHNICAL DATA SHEET

TECHNYL AX 219S V50 NC
(Previously DOMAMID XS 66G50H1 NC)

PA66-Alloy, 50% glass fiber reinforced, heat-aging stabilized, for injection moulding, natural color

General

Feature	Heat-aging stabilized
Polymer type	PA66-Alloy
Processing technology	Injection molding
Certification	RoHS
Colors available	Natural
Forms	Pellets

Condition	Standard	Unit	Value
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Physical properties

Density		ISO 1183	g/cm ³	1.6
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.3 - 1.4
Water absorption	24 hr, 23°C	ISO 62	%	0.05 - 0.2
Water absorption, saturation			%	3.4
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.05 - 0.2
Molding shrinkage, normal		ISO 294-4, 2577	%	0.15 - 0.3

Mechanical properties

dam / cond.*

Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	18500 / 17500
Stress at break	5 mm/min	ISO 527-1/-2	MPa	260 / 210
Strain at break	5 mm/min	ISO 527-1/-2	%	2.7 / 2.7
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	16800 / 16100
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	385 / 350
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	100 / 95
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	85 / 80
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	15 / 15
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	13.5 / 13

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Thermal properties

Melting temperature, 10°C/min		ISO 11357-1	°C	260
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	250
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	240
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	235

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+016
Surface resistivity		IEC 62631-3-1	ohm	1E+014

Burning behaviour

Flammability, 0.75 mm	0.75 mm	UL 94		HB
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).
*: conditioned according to ISO 1110

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Suggested max moisture	0.15 %
Rear temperature	270 - 280 °C
Middle temperature	275 - 285 °C
Front temperature	285 - 305 °C
Recommended mould temperature	80 - 120 °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.

Disclaimer

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