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TECHNICAL DATA SHEET

TECHNYL A 219 V40 NC

(Previously DOMAMID 66G40H1 NC)

Polyamide 66, 40% glass fiber reinforced, heat-aging stabilized, for injection moulding, natural color

General

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

Product identification

ISO 1043 abbreviation	PA66-GF40
ISO 16396 designation	PA66,GF40,M1H,S14-120

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.46
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.9 - 2
Water absorption	24 hr, 23°C	ISO 62	%	0.8 - 0.9
Water absorption, saturation			%	5
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.2 - 0.4
Molding shrinkage, normal		ISO 294-4, 2577	%	0.6 - 0.8
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm³/10 min	15
Viscosity number	96% H2SO4	ISO 307	cm³/g	145

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	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	13000 / 9500
Stress at break		ISO 527-1/-2	MPa	215 / 150
Strain at break		ISO 527-1/-2	%	2.8 / 4.5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	11500 / 8500
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	310 / 250
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	95 / 100
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	15 / 20
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m²	11 / 12
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	90 / 95
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	14 / 20
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	255
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	250
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	250
Electrical properties				
Volume resistivity		IEC 62631-3-1	ohm.m	1E+016
Surface resistivity		IEC 62631-3-1	ohm	1E+014
Comparative tracking index	Solution A	IEC 60112	V	550
CTI performance level category		Sol A		PLC 1
Burning behaviour				
UL Yellow Card availability (UL)		Click here to have access to the UL Yellow Card → E170540-100081028		
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).
**: 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.

Disclaimer

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