

## 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

	Condition	Standard	Unit	Value
<b>Physical properties</b>				
Density		ISO 1183	g/cm <sup>3</sup>	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	cm <sup>3</sup> /10 min	15
Viscosity number	96% H2SO4	ISO 307	cm <sup>3</sup> /g	145

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
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/m <sup>2</sup>	95 / 100
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	15 / 20
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	11 / 12
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m <sup>2</sup>	90 / 95
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	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 	Click here to have access to the UL Yellow Card → <a href="https://www.ul.com/Products/Plastics/TECHNYL-A-219-V40-NC">E170540-100081028</a>			
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

The information provided in this documentation corresponds to our technical knowledge at the date of its publication and do not constitute a specification. This information may be subject to revision at our discretion. Domo cannot anticipate all conditions under which this information and our products of other manufactures in combination with our products may be used. Domo accepts no responsibility for results obtained by the application of this information or for the safety and suitability of our products alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product or product combination for their own purposes. Unless otherwise agreed in writing, Domo sells the product without warranties. Buyers and users assume all responsibility and liability for loss or damage arising from handling and use of our products, whether used alone or in combination with other products. Unless specifically indicated, the grades mentioned are not suitable for applications in the pharmaceutical/medical sector.