

TECHNICAL DATA SHEET

TECHNYL C 216 V20 NC

(Previously DOMAMID 6G20 300 NC / DOMAMID 6G20 NC)

Polyamide 6, 20% glass fiber reinforced, for injection moulding, natural color

General

Polymer type	PA6 (Polyamide 6)
Processing technology	Injection molding
Certification	RoHS UL-Yellow Card

Product identification

ISO 1043 abbreviation	PA6-GF20
ISO 16396 designation	PA6,GF20,M1,S14-060

Condition	Standard	Unit	Value
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Physical properties

Density		ISO 1183	g/cm ³	1.27
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.3
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3 - 0.5
Molding shrinkage, normal		ISO 294-4, 2577	%	0.8 - 1

Mechanical properties

dam / cond.*

Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	7000 / 4200
Stress at break	5 mm/min	ISO 527-1/-2	MPa	145 / 85
Strain at break	5 mm/min	ISO 527-1/-2	%	3.5 / 5.5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	6000 / 3000
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	200 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	65 / 75
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	45 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	9 / 17
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	9 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	60 / 80
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	9 / 19

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	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	221
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	210
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	195
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	210

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+014
Comparative tracking index	Solution A	IEC 60112	V	500
CTI performance level category		Sol A		PLC 1

Burning behaviour

UL Yellow Card availability 	Click here to have access to the UL Yellow Card → E329653-100458649			
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Flammability, 3.0 mm	3.0 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)
Suggested max moisture	0.2 %
Rear temperature	230 - 235 °C
Middle temperature	235 - 240 °C
Front temperature	240 - 250 °C
Recommended melt temperature	230 - 250 °C
Recommended mould temperature	60 - 90 °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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