

TECHNICAL DATA SHEET

TECHNYL C 216 V25 NC
(Previously DOMAMID 6G25 300 NC / DOMAMID 6G25)

Polyamide 6, 25% glass fiber reinforced, for injection moulding

General

Polymer type	PA6 (Polyamide 6)
Processing technology	Injection molding
Certification	RoHS

Product identification

ISO 1043 abbreviation	PA6-GF25
ISO 16396 designation	PA6,GF25,M1,S14-080

Condition	Standard	Unit	Value
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Physical properties

Density		ISO 1183	g/cm ³	1.31
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.2 - 0.4
Molding shrinkage, normal		ISO 294-4, 2577	%	0.8 - 1

Mechanical properties

				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	8300 / 5000
Stress at break	5 mm/min	ISO 527-1/-2	MPa	155 / 95
Strain at break	5 mm/min	ISO 527-1/-2	%	3.2 / 5.5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	6100 / 3800
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	230 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	80 / 85
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	11 / 20
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	70 / 85
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	12 / 22

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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	215
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	200
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

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), 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)
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.

Injection notes

The material is supplied in airtight bags, ready for use. In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point minimum -20°C. Recommended time 2-4h.

Injection advice

For reinforced polyamides, Domo recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 / 1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 / 1.2379 (DIN Norm). In the case of high requirements on surface quality a mould temperature of up to 120°C can be considered. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design.

Disclaimer

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