

TECHNICAL DATA SHEET

TECHNYL C 216 V15 NC

(Previously DOMAMID 6G15 300 NC / DOMAMID 6G15 202 NC / DOMAMID 6G15 NC)

Polyamide 6, 15% glass fiber reinforced, for injection moulding, natural color

General

Polymer type	PA6 (Polyamide 6)		
Processing technology	Injection molding		
Certification	RoHS	UL-Yellow Card	
Colors available	Natural		
Forms	Pellets		

Product identification

ISO 1043 abbreviation	PA6-GF15
ISO 16396 designation	PA6,GF15,M1,S14-060

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.24
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.6
Water absorption	24 hr, 23°C	ISO 62	%	8
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.35 - 0.55
Molding shrinkage, normal		ISO 294-4, 2577	%	0.85 - 1.05

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	5600 / 2900
Stress at break	5 mm/min	ISO 527-1/-2	MPa	120 / 67
Strain at break	5 mm/min	ISO 527-1/-2	%	4 / 7.5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	4700 / 2400
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	200 / 105
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	45 / 75
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	45 / 50
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	7 / 15
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	5 / 5
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	40 / 70
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	7 / 14
Rockwell hardness		ISO 2039/2	ScaleR	120 / -


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	207
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	190
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

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

*: 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

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

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.