

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
Colors available	Natural
Forms	Pellets

Product identification

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

Condition	Standard	Unit	Value
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Physical properties

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

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	Condition	Standard	Unit	Value dam / cond.*
Mechanical properties				
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/m²	45 / 75
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m²	45 / 50
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	7 / 15
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m²	5 / 5
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	40 / 70
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	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

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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

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