

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

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	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/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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