

TECHNICAL DATA SHEET

TECHNYL C 216 V30 BK 111 D

DOMAMID 6G30 111 BK

Polyamide 6, 30% glass fiber reinforced, for injection moulding, black

General

Polymer type	PA6
Certifications	RoHS EC 1907/2006 (REACH) UL listed product
Feature	not heat stabilized
Colors available	black
Processing technology	injection moulding

Product identification

ISO 1043 abbreviation	PA6-GF30
ISO 16396 designation	PA6,GF30,M,S14-100

Condition	Standard	Unit	Value
-----------	----------	------	-------

Physical properties

Density		ISO 1183	g/cm ³	1.36
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.2 - 2.4
Water absorption	24 hr, 23°C	ISO 62	%	1.4 - 1.5
Water absorption, saturation			%	6.2
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.25 - 0.45
Molding shrinkage, normal		ISO 294-4, 2577	%	0.9 - 1.1

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10000 / 6200
Stress at break	5 mm/min	ISO 527-1/-2	MPa	160 / 95
Strain at break	5 mm/min	ISO 527-1/-2	%	2.5 / 5.7
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	8000 / 4950
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	250 / 160
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	65 / 80
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	9 / -
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	9 / -

*: **conditioned according to ISO 1110**

	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	220
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	210
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	214

	Condition	Standard	Unit	Value
Burning behaviour				
Flammability, 0.75 mm	0.75 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

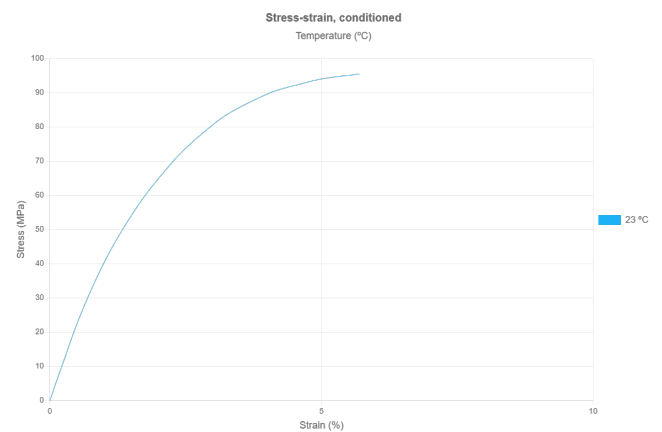
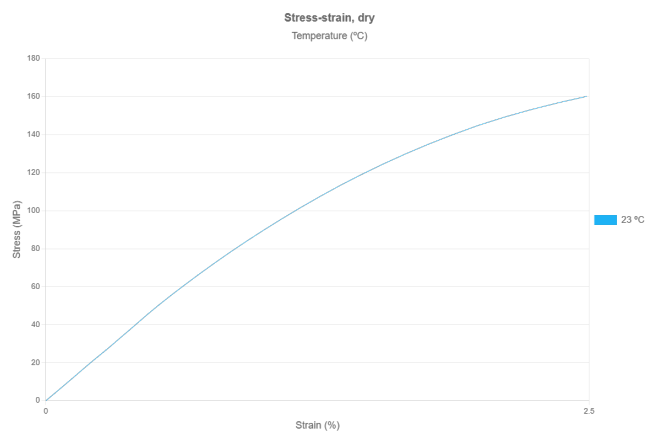
Condition	Standard	Unit	Value
-----------	----------	------	-------

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1.0E15
Surface resistivity		IEC 62631-3-1	ohm	1.0E14

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Recommended melt temperature	250 - 290 °C
Recommended mould temperature	80 - 100 °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.