

## TECHNICAL DATA SHEET

# TECHNYL C 216 V30 BK 111 D

(Previously DOMAMID 6G30 111 BK)

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

### General

Polymer type	PA6 (Polyamide 6)		
Processing technology	Injection molding		
Certification	RoHS EC 1907/2006 (REACH)	UL-Yellow Card	
Colors available	Black		
Forms	Pellets		

### Product identification

ISO 1043 abbreviation	PA6-GF30
ISO 16396 designation	PA6,GF30,M1,S14-100

Condition	Standard	Unit	Value
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### Physical properties

Condition	Standard	Unit	Value	
Density	ISO 1183	g/cm <sup>3</sup>	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

### Mechanical properties

Condition	Standard	Unit	Value	
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 <sup>2</sup>	65 / 80
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	9 / -
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	9 / -

	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
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

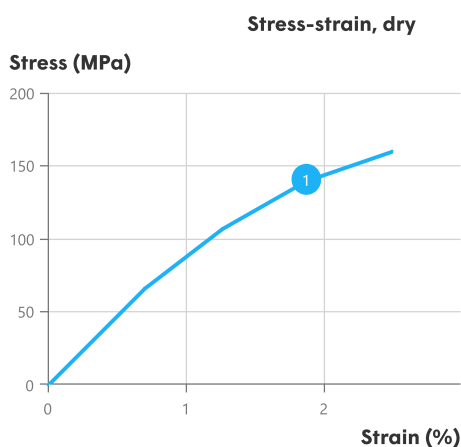
<b>Electrical properties</b>				
Volume resistivity		IEC 62631-3-1	ohm.m	1E+015
Surface resistivity		IEC 62631-3-1	ohm	1E+014

<b>Burning behaviour</b>				
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

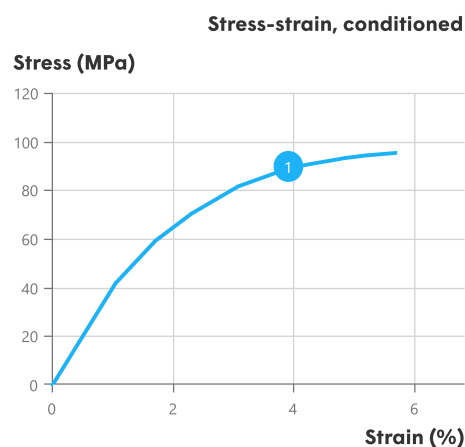
Test run at 23°C if not differently specified, DAM state (dry as moulded).  
 \*: conditioned according to ISO 1110

<b>Processing conditions</b>	
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

These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part.



Temperature (°C)	
1	Spannung 1



Temperature (°C)	
1	Spannung 2

## 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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