

TECHNICAL DATA SHEET

## TECHNYL C 216L1 V30 BK

### DOMAMID 6G30UV1

Polyamide 6, 30% glass fiber reinforced, UV-stabilized, for injection moulding

#### General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA6	
Feature	UV stabilized	
Colors available	black grey	natural
Forms	pellets	
Processing technology	injection moulding	

#### Product identification

ISO 1043 abbreviation	PA6-GF30
ISO 16396 designation	PA6,GF30,ML1,S14-090

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 (equivalent ISO 1110)	%	2.2 - 2.4
Water absorption	24 hr, 23°C, immersion in water, thickness 2mm	%	1.4 - 1.5
Water absorption, saturation		%	6.1
Molding shrinkage, parallel	ISO 294-4, 2577	%	0.3 - 0.5
Molding shrinkage, normal	ISO 294-4, 2577	%	0.8 - 1.0
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	cm <sup>3</sup> /10 min	45.0
Viscosity number	96% H2SO4	cm <sup>3</sup> /g	145.0

Condition	Standard	Unit	Value
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## Mechanical properties

dam / cond.\*

Condition	Standard	Unit	Value	
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	9500 / 6000
Stress at break	5 mm/min	ISO 527-1/-2	MPa	170 / 105
Strain at break	5 mm/min	ISO 527-1/-2	%	2.7 / 4.8
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9300 / 5800
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	255 / 160
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	75 / 77
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	11 / 14
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m <sup>2</sup>	75 / 80
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	10 / 13
Izod notched impact strength, -30°C	-30°C	ISO 180/1A	kJ/m <sup>2</sup>	63 / 8
Rockwell hardness		ISO 2039/2	ScaleR	122 / -

\*: conditioned according to ISO 1110

Condition	Standard	Unit	Value
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## Thermal properties

Condition	Standard	Unit	Value
Melting temperature, 10°C/min	ISO 11357-1	°C	221
Temp. of deflection under load, 0.45 MPa	ISO 75	°C	220
Temp. of deflection under load, 1.80 MPa	ISO 75	°C	200
Vicat softening temperature	ISO 306	°C	215

Condition	Standard	Unit	Value
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## Burning behaviour

Condition	Standard	Unit	Value
Flammability, 0.75 mm	UL 94		HB
Glow-wire flammability index, GWFI, 3.0 mm		°C	650
Glow-wire flammability index, GWFI	IEC 60695-2-12	°C	>= 650
Burning rate, FMVSS, Thickness 1 mm	FMVSS 302		< 100 mm/min

Condition	Standard	Unit	Value
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## Electrical properties

Condition	Standard	Unit	Value
Volume resistivity	IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity	IEC 62631-3-1	ohm	1.0E13
Comparative tracking index	IEC 60112	V	500.0
CTI performance level category	Sol A		PLC 1

## Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Recommended melt temperature	240 - 270 °C
Recommended mould temperature	90 - 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.

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## 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.