

TECHNICAL DATA SHEET

## TECHNYL C 246SI V30 BK

### DOMAMID 6G30IK1 202 BK

Polyamide 6, 30% glass fiber reinforced, low temperature impact modified, for injection moulding, black

#### General

Certifications	RoHS		
Polymer type	PA6		
Feature	impact modified	not heat stabilized	
Processing technology	injection moulding		

#### Product identification

ISO 1043 abbreviation	PA6-I-GF30
ISO 16396 designation	PA6-I,GF30,M,S14-090

Condition	Standard	Unit	Value
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#### Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm <sup>3</sup>	1.34
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.7 - 2.1
Water absorption	24 hr, 23°C	ISO 62	%	1.4 - 1.5
Water absorption, saturation			%	6.2
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.1 - 0.3
Molding shrinkage, normal		ISO 294-4, 2577	%	0.5 - 0.7

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	9000 / 5300
Stress at break	5 mm/min	ISO 527-1/-2	MPa	150 / 110
Strain at break	5 mm/min	ISO 527-1/-2	%	4 / 10
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	7000 / 4400
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	255 / 150
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	90 / 105
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m <sup>2</sup>	95 / 95
Charpy impact strength	-40°C	ISO 179/1eU	kJ/m <sup>2</sup>	90 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	20 / 30
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	12 / 13

\*: **conditioned according to ISO 1110**

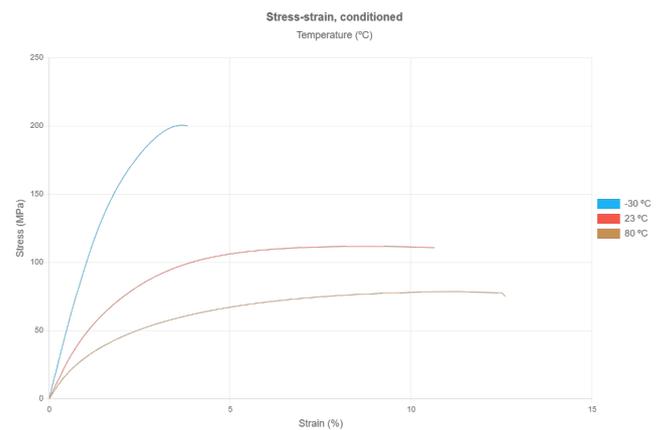
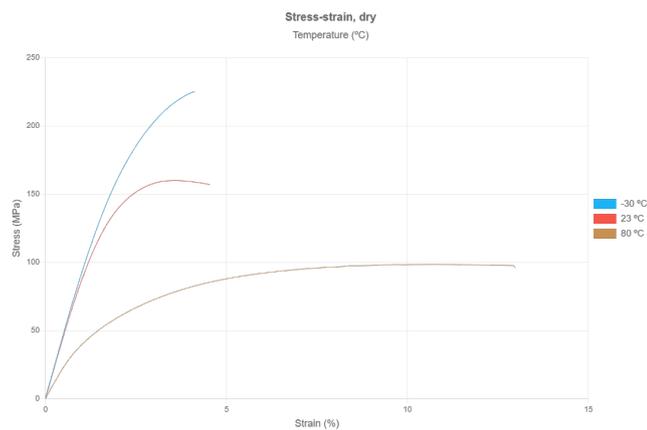
	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Melting temperature, 10°C/min		ISO 11357-1	°C	221
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	210
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	205

	Condition	Standard	Unit	Value
<b>Burning behaviour</b>				
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

	Condition	Standard	Unit	Value
<b>Electrical properties</b>				
Volume resistivity		IEC 62631-3-1	ohm.m	1.0E15
Surface resistivity		IEC 62631-3-1	ohm	1.0E13

## 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.