

TECHNICAL DATA SHEET

TECHNYL C 246SI V40 BK

DOMAMID 6G40IK1 BK

Polyamide 6, 40% 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-GF40
ISO 16396 designation	PA6,GF40,MP,S14-120

Condition	Standard	Unit	Value
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Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.43
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.4 - 1.8
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.4 - 0.6
Molding shrinkage, normal		ISO 294-4, 2577	%	0.9 - 1.1
Viscosity number	96% H2SO4	ISO 307	cm ³ /g	145.0

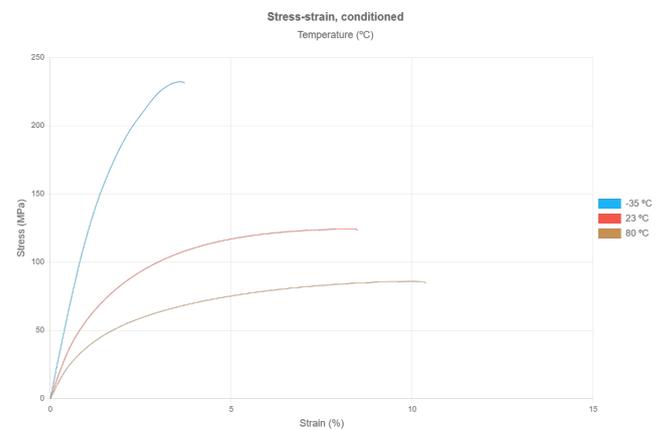
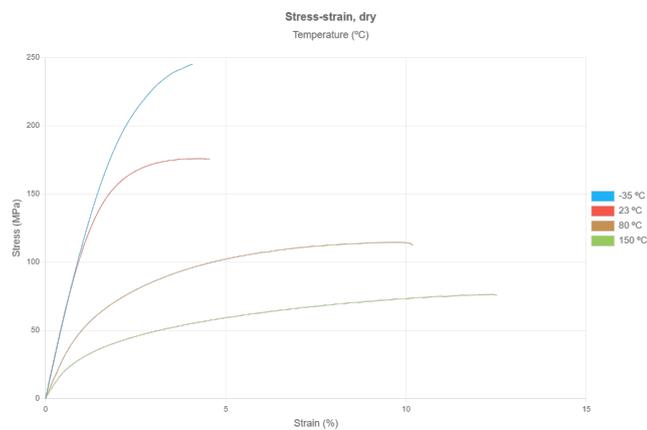
	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	12000 / 7000
Stress at break	5 mm/min	ISO 527-1/-2	MPa	170 / 120
Strain at break	5 mm/min	ISO 527-1/-2	%	4.5 / 9
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	10000 / 6500
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	105 / 120
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	105 / 100
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	23 / 32
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	17 / 17

*: **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	216
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	200

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

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.