

TECHNICAL DATA SHEET

TECHNYL C 246SI V30 NC

TECHNYL C 246SI V30 NC is a polyamide 6 reinforced with 30% of glass fiber, with improved impact resistance, for injection moulding. This grade offers high impact strength and good mechanical properties.

General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA6	
Feature	good surface finish	high impact resistant
Applications	consumer applications outdoor applications	industrial applications power tool / garden equipment
Colors available	black	natural
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6-GF30
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Condition	Standard	Unit	Value
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Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.32
Water absorption	24 hr, 23°C	ISO 62	%	0.88
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.1
Molding shrinkage, normal		ISO 294-4, 2577	%	0.8

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	8600 / 5000
Stress at break		ISO 527-1/-2	MPa	140 / 90
Strain at break		ISO 527-1/-2	%	4.5 / 10
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	7500 / 4400
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	230 / 125
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	92 / 110
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	100 / 100
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	23 / 36
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	15 / -

*: **conditioned according to ISO 1110**

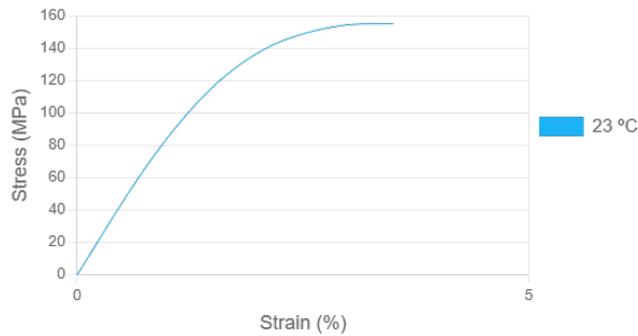
	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	222
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	200

Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.08 %
Rear temperature	250 - 270 °C
Middle temperature	260 - 280 °C
Front temperature	260 - 290 °C
Recommended mould temperature	70 - 90 °C

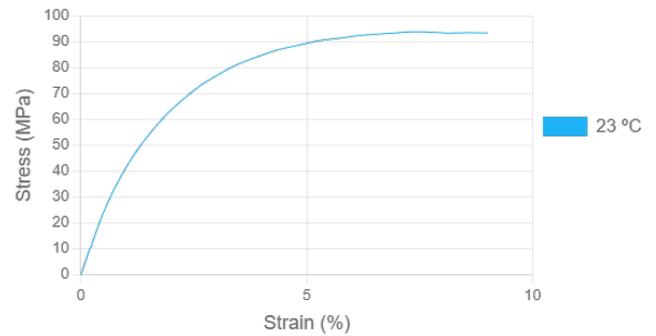
Stress-strain, dry

Temperature (°C)



Stress-strain, conditioned

Temperature (°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.