

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

Feature	Good surface finish	High impact resistant
Polymer type	PA6 (Polyamide 6)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Consumer good application Outdoor Applications	Industrial Applications Power Tool & Garden Equipment
Colors available	Black	Natural
Forms	Pellets	

Product identification

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

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

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 / -

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Thermal properties

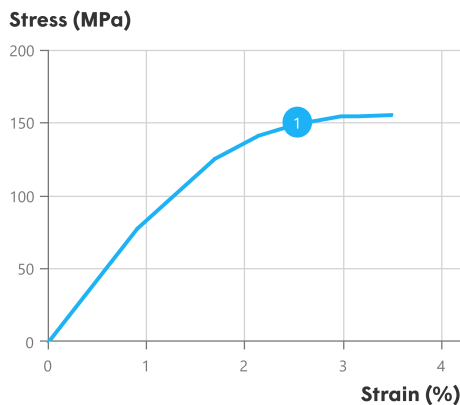
Melting temperature, 10°C/min		ISO 11357-1	°C	222
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	200

*: conditioned according to ISO 1110

Processing conditions

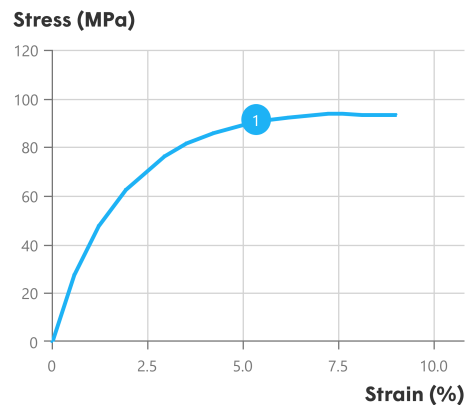
Drying temperature/time	80 °C
Suggested max moisture	0.08 %
Rear temperature	250 - 270 °C
Middle temperature	260 - 280 °C
Front temperature	260 - 290 °C
Recommended mould temperature	70 - 90 °C

Stress-strain, dry



Temperature (°C)	
1	Spannung
2	

Stress-strain, conditioned



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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