

TECHNICAL DATA SHEET

TECHNYL C 216 V45 BK 34N

TECHNYL C 216 V45 BK 34N is a polyamide 6, reinforced with 45% of glass fibre, for injection moulding. This grade has been optimized to have good impact strength, a nice surface aspect and being easy to paint.

General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA6	
Feature	high dimensional stability	high stiffness
Applications	consumer applications	sport
Colors available	black	natural
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6-GF45
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Condition	Standard	Unit	Value
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Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.51
Water absorption	24 hr, 23°C	ISO 62	%	0.8
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3
Molding shrinkage, normal		ISO 294-4, 2577	%	0.65

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	14500 / 9300
Stress at break		ISO 527-1/-2	MPa	210 / 135
Strain at break		ISO 527-1/-2	%	3 / 6
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	13500 / 8000
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	340 / 170
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	90 / 100
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	13 / 20

*: **conditioned according to ISO 1110**

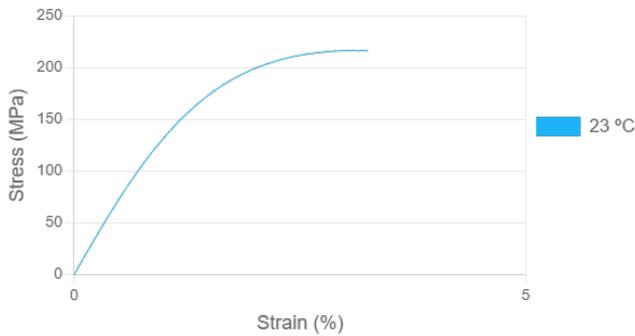
	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	222
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	210

Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	235 - 240 °C
Middle temperature	240 - 250 °C
Front temperature	250 - 260 °C
Recommended mould temperature	60 - 90 °C

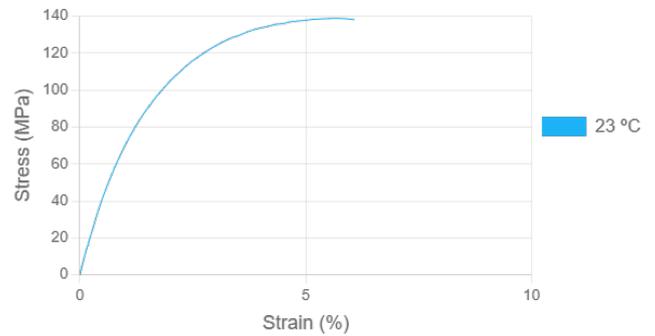
Stress-strain, dry

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.