

TECHNICAL DATA SHEET

## TECHNYL B 216 V30 BK 3N

TECHNYL B 216 V30 BK 3N is a Copolyamide 66/6, reinforced with 30% of glass fibre, for injection moulding. This grade offers an excellent combination between impact resistance, rigidity, thermal resistance and surface appearance.

### General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA66/6 copolymer	
Feature	good surface finish	not heat stabilized
Applications	connectors	general purpose
Colors available	black grey	natural
Forms	pellets	
Processing technology	injection moulding	

### Product identification

ISO 1043 abbreviation	PA66/6-GF30
ISO 16396 designation	PA66/6,GF30,M,S14-100

Condition	Standard	Unit	Value
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### Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm <sup>3</sup>	1.37
Water absorption	24 hr, 23°C	ISO 62	%	0.9 - 1.0
Water absorption, saturation			%	6.0
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.1 - 0.3
Molding shrinkage, normal		ISO 294-4, 2577	%	1.0 - 1.2

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	9800 / 6500
Stress at break		ISO 527-1/-2	MPa	175 / 115
Strain at break		ISO 527-1/-2	%	2.5 / 7
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	8300 / 4700
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	235 / 140
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	65 / 75
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	10 / 16
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	10 / 19

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

	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Melting temperature, 10°C/min		ISO 11357-1	°C	242
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	225

	Condition	Standard	Unit	Value
<b>Burning behaviour</b>				
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Oxygen index			%	23.0
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

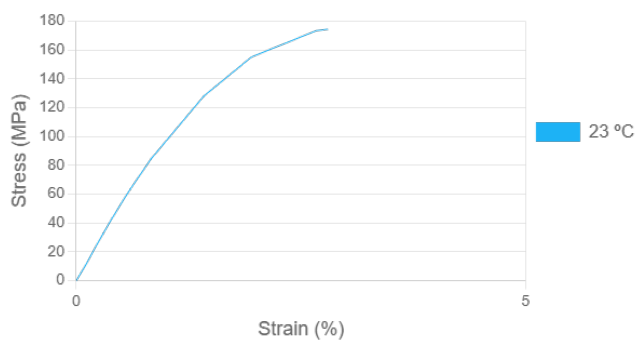
	Condition	Standard	Unit	Value
<b>Electrical properties</b>				
Volume resistivity		IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	6.0E15
Dielectric strength	1 mm	IEC 60243-1	kV/mm	30.0

## Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	255 - 265 °C
Middle temperature	260 - 270 °C
Front temperature	270 - 280 °C
Recommended mould temperature	70 - 100 °C

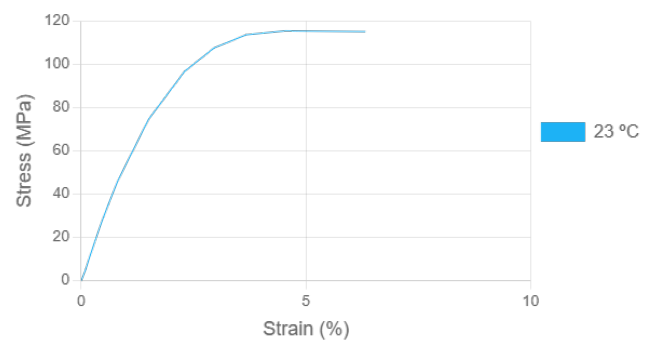
**Stress-strain, dry**

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.