

TECHNICAL DATA SHEET

## TECHNYL B 218 V30 BK 21N

TECHNYL B 218 V30 BK 21N is a polyamide 66/6, reinforced with 30% of glass fibre, heat stabilized, for injection moulding. This grade offers an excellent combination between impact resistance, rigidity, thermal resistance and surface appearance. This grade is commonly used in the automotive industry; especially for the production of unpainted external parts due to its excellent surface finish.

### General

Polymer type	PA66/6 copolymer	
Certifications	RoHS EC 1907/2006 (REACH)	UL listed product
Feature	heat-aging stabilized	good surface finish
Applications	automotive applications handles	fittings outdoor applications
Colors available	black	grey
Forms	pellets	
Processing technology	injection moulding	

### Product identification

ISO 1043 abbreviation	PA66/6-GF30
ISO 16396 designation	PA66/6,GF30,MH,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	%	1.2
Water absorption, saturation			%	6.0
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3
Molding shrinkage, normal		ISO 294-4, 2577	%	1.0

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	9800 / 5000
Stress at break		ISO 527-1/-2	MPa	175 / 100
Strain at break		ISO 527-1/-2	%	3.3 / 9
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	8800 / 5000
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	260 / 160
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	70 / 90
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>	11 / 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	230

	Condition	Standard	Unit	Value
<b>Burning behaviour</b>				
UL Yellow Card availability 1	<a href="#"><b>Click here to have access to the UL Yellow Card availability 1 -&gt; QMF22.E44716</b></a>			
Oxygen index			%	23.0
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

Condition	Standard	Unit	Value
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## Electrical properties

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	34.0

## 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

## 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.