

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

Feature	Heat-aging stabilized	Good surface finish
Polymer type	PA66/6 copolymer	
Processing technology	Injection molding	
Certification	RoHS EC 1907/2006 (REACH)	UL-Yellow Card
Applications	Automotive Applications Handles	Fittings Outdoor Applications
Colors available	Black	Grey
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA66/6-GF30
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	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm ³	1.37
Water absorption	24 hr, 23°C	ISO 62	%	1.2
Water absorption, saturation			%	6
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3
Molding shrinkage, normal		ISO 294-4, 2577	%	1

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	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
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/m²	70 / 90
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	10 / 16
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	11 / 19

Thermal properties

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

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	6E+015
Dielectric strength	1 mm	IEC 60243-1	kV/mm	34

Burning behaviour

UL Yellow Card availability 	Click here to have access to the UL Yellow Card → QMFZ2.E44716			
Oxygen index			%	23

*: conditioned according to ISO 1110

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.

Disclaimer

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