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TECHNICAL DATA SHEET

TECHNYL B 218 BK 21N

TECHNYL B 218 BK 21N is an unreinforced copolyamide PA 66/6, heat stabilized, medium viscosity, for injection moulding . This grade offers an excellent combination between impact resistance, rigidity, thermal resistance and surface appearance.

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	Connectors	
Colors available	Black	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA66/6

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm³	1.14
Water absorption	24 hr, 23°C	ISO 62	%	1.6
Water absorption, saturation			%	3.6
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.5
Molding shrinkage, normal		ISO 294-4, 2577	%	1.5
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3300 / 950
Stress at break		ISO 527-1/-2	MPa	75 / 30
Strain at break		ISO 527-1/-2	%	6 / 100
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	3100 / 900
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	120 / 35
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	4 / 15
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	4 / 15

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	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	242
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	180
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	55
Electrical properties				
Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+015
Dielectric strength	1 mm	IEC 60243-1	kV/mm	25
Burning behaviour				
UL Yellow Card availability	Click here to have access to the UL Yellow Card → QMFZ2.E44716			
Glow-wire flammability index, GWFI, 1.5 mm	1.5 mm	IEC 60695-2-12	°C	650

**: conditioned according to ISO 1110*

Processing conditions	
Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	250 - 260 °C
Middle temperature	255 - 265 °C
Front temperature	265 - 275 °C
Recommended mould temperature	60 - 80 °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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