

TECHNICAL DATA SHEET

## TECHNYL B 238 BK 21N

TECHNYL B 238 BK 21N is an unfilled copolyamide 6.6/6, impact modified, for injection moulding. This product offers an excellent notched impact resistance, even at low temperature.

### General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA66/6 copolymer	
Feature	heat-aging stabilized impact resistant(obs)	good surface finish
Applications	connectors	fasteners
Colors available	black	
Forms	pellets	
Processing technology	injection moulding	

### Product identification

ISO 1043 abbreviation	PA66/6
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Condition	Standard	Unit	Value
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### Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm <sup>3</sup>	1.09
Water absorption	24 hr, 23°C	ISO 62	%	1.4
Molding shrinkage, parallel		ISO 294-4, 2577	%	2.2
Molding shrinkage, normal		ISO 294-4, 2577	%	1.7

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	2300 / 900
Stress at break		ISO 527-1/-2	MPa	50 / 40
Strain at break		ISO 527-1/-2	%	50 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2000 / 700
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	80 / 27
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	8 / 30
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	7 / 18

\*: **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	62
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	165

	Condition	Standard	Unit	Value
<b>Burning behaviour</b>				
Flammability, 1.5 mm	1.5 mm	UL 94		HB

	Condition	Standard	Unit	Value
<b>Electrical properties</b>				
Volume resistivity		IEC 62631-3-1	ohm.m	1.0E14
Surface resistivity		IEC 62631-3-1	ohm	5.0E15
Dielectric strength	1 mm	IEC 60243-1	kV/mm	32.0

<b>Processing conditions</b>				
Drying temperature/time	80 °C			

**Processing conditions**

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.