

TECHNICAL DATA SHEET

TECHNYL B 316 NC
(Previously TECHNYL FE 50221 AL)

TECHNYL B 316 NC is an unreinforced copolyamide 66/6, high viscosity, for injection moulding. This grade is particularly suitable for medium and large thickness parts where high characteristics are required (impact, vibration), i.e: plastic insulators for railway bindings and crossbar / handles.

General

Feature	Good surface finish	High impact resistant
Polymer type	PA66/6 copolymer	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Automotive Applications Industrial Applications	Consumer good application
Colors available	Black	Natural
Forms	Pellets	

Product identification

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

Density		ISO 1183	g/cm ³	1.14
Water absorption	24 hr, 23°C	ISO 62	%	1.6

Mechanical properties

dam / cond.*

Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3000 / 1100
Stress at break		ISO 527-1/-2	MPa	50 / 50
Strain at break		ISO 527-1/-2	%	50 / 400
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2600 / 800
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	5.5 / 40
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	5 / 35

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	67

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Electrical properties				
Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+014
Comparative tracking index	Solution A	IEC 60112	V	575
CTI performance level category		Sol A		PLC 1
Dielectric strength	1 mm	IEC 60243-1	kV/mm	26

Burning behaviour

Flammability, 1.5 mm	1.5 mm	UL 94		HB
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*: 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 unfilled polyamides, Domo recommends the use of high alloy steel with a low chromium content. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (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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