

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
-----------------------	--------

Condition	Standard	Unit	Value
-----------	----------	------	-------

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

TECHNICAL DATA SHEET

TECHNYL B 316 NC

	Condition	Standard	Unit	Value
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
----------------------	--------	-------	--	----

**: 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

The information provided in this documentation corresponds to our technical knowledge at the date of its publication and do not constitute a specification. This information may be subject to revision at our discretion. Domo cannot anticipate all conditions under which this information and our products of other manufactures in combination with our products may be used. Domo accepts no responsibility for results obtained by the application of this information or for the safety and suitability of our products alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product or product combination for their own purposes. Unless otherwise agreed in writing, Domo sells the product without warranties. Buyers and users assume all responsibility and liability for loss or damage arising from handling and use of our products, whether used alone or in combination with other products. Unless specifically indicated, the grades mentioned are not suitable for applications in the pharmaceutical/medical sector.