

TECHNICAL DATA SHEET

TECHNYL A 205F BK 21N

TECHNYL A 205F BK 21N is an unreinforced polyamide 66 for injection moulding. This grade offers two main advantages: excellent filling qualities and UL 94 V2 under 0.4 mm. It is particularly suitable for the moulding of long parts with thin wall sections

General

Feature	Fast molding cycle	
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS EC 1907/2006 (REACH)	UL-Yellow Card European Railways Certifications EN 45545-2
Applications	Consumer good application home & office furniture PC / laptop / tablet	Fasteners Industrial Applications
Colors available	Black Grey	Natural White
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA66
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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	%	1.5
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.5
Molding shrinkage, normal		ISO 294-4, 2577	%	1.7

TECHNICAL DATA SHEET

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	Condition	Standard	Unit	Value
Mechanical properties			dam / cond.*	
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3200 / 1400
Stress at break		ISO 527-1/-2	MPa	60 / 40
Strain at break		ISO 527-1/-2	%	30 / 100
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	3000 / 1300
Flexural modulus, ASTM D790	2 mm/min	ASTM D790	MPa	3350 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	120 / 50
Flexural strength, ASTM D790	2 mm/min	ASTM D790	MPa	125 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	5 / 10
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	5 / 8

Thermal properties

Melting temperature, 10°C/min		ISO 11357-1	°C	263
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	205
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	65

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	5E+015
Dielectric strength	1 mm	IEC 60243-1	kV/mm	22

Burning behaviour

UL Yellow Card availability 	Click here to have access to the UL Yellow Card → QMFZ2.E44716			
Flammability, 0.40 mm	0.40 mm	UL 94		V2
Flammability, 0.75 mm	0.75 mm	UL 94		V2
Flammability, 1.5 mm	1.5 mm	UL 94		V2
Glow-wire flammability index, GWFI, 1.5 mm	1.5 mm	IEC 60695-2-12	°C	800
Oxygen index			%	29

*: conditioned according to ISO 1110

TECHNICAL DATA SHEET

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Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	265 - 275 °C
Middle temperature	270 - 280 °C
Front temperature	280 - 285 °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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