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TECHNICAL DATA SHEET

TECHNYL C 216 BK

TECHNYL C 216 BK is an unreinforced polyamide 6, standard nucleation for fast cycling, for injection moulding. This grade offers a high fluidity and good mould release.

General

Feature	Fast molding cycle	
Polymer type	PA6 (Polyamide 6)	
Processing technology	Injection molding	
Certification	RoHS EC 1907/2006 (REACH)	UL-Yellow Card
Applications	Consumer good application	Power Tool & Garden Equipment
Colors available	Black	Natural
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA6

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm³	1.14
Water absorption	24 hr, 23°C	ISO 62	%	1.3
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.2
Molding shrinkage, normal		ISO 294-4, 2577	%	1.3
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 / -
Strain at break		ISO 527-1/-2	%	10 / 200
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2800 / 1000
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	100 / 40
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	3.5 / 84
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	4.5 / 75

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	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	222
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	165
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	60
Electrical properties				
Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+014
Burning behaviour				
UL Yellow Card availability	Click here to have access to the UL Yellow Card → QMFZ2.E44716			
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Flammability, 3.0 mm	3.0 mm	UL 94		HB

**: conditioned according to ISO 1110*

Processing conditions	
Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	230 - 235 °C
Middle temperature	235 - 240 °C
Front temperature	235 - 245 °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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