

TECHNICAL DATA SHEET

TECHNYL SAFE A 216FC NC

(Previously TECHNYL A 216 NATURAL FA)

TECHNYL SAFE A 216FC NC is a polyamide 66, unfilled, food contact approved for injection moulding. Designed to be used in moulded parts requiring food contact compliance in industrial consumer good as well as appliances applications.

General

Feature	UL V2	Food contact approved
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS EC 1907/2006 (REACH)	UL-Yellow Card
Applications	Small appliance Industrial Applications large appliance	Consumer good application building / construction
Colors available	Natural	
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	%	1.3
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.6
Molding shrinkage, normal		ISO 294-4, 2577	%	1.5

Mechanical properties

dam / cond.*

Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3000 / 1500
Stress at break		ISO 527-1/-2	MPa	80 / 65
Strain at break		ISO 527-1/-2	%	30 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2900 / 1300
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	120 / 50
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	4.5 / 14
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	4 / 12

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	Condition	Standard	Unit	Value
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	200
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	75

Electrical properties

Dielectric strength	1 mm	IEC 60243-1	kV/mm	22
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Burning behaviour

UL Yellow Card availability 	Click here to have access to the UL Yellow Card → QMFZ2.E44716			
Flammability, 0.75 mm	0.75 mm	UL 94		V2
Flammability, 1.5 mm	1.5 mm	UL 94		V2
Flammability, 3.0 mm	3.0 mm	UL 94		V2
Glow-wire flammability index, GWFI, 0.75 mm	0.75 mm	IEC 60695-2-12	°C	650
Glow-wire flammability index, GWFI, 1.5 mm	1.5 mm	IEC 60695-2-12	°C	650

*: conditioned according to ISO 1110

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.

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