

TECHNICAL DATA SHEET

**TECHNYL SAFE C 316FC NC**  
**DOMAMID 6MVFC**



TECHNYL SAFE C 316FC NC is a polyamide 6, unfilled, medium viscosity, food contact approved for injection moulding and extrusion. Designed to be used in parts requiring food contact compliance in industrial consumer goods applications as well as appliance applications.

**General**

Certifications	Food contact EU	RoHS
Polymer type	PA6	
Feature	food contact approved	medium viscosity
Applications	small appliance industrial applications building / construction	consumer applications large appliance
Colors available	natural	
Forms	pellets	
Processing technology	injection moulding	

**Product identification**

ISO 1043 abbreviation	PA6
ISO 16396 designation	PA6,M,S18-030

Condition	Standard	Unit	Value
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**Physical properties**

Density		ISO 1183	g/cm <sup>3</sup>	1.14
Viscosity number	96% H2SO4	ISO 307	cm <sup>3</sup> /g	200.0

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	2900 / -
Strain at break	50 mm/min	ISO 527-1/-2	%	40 / -
Yield stress	50 mm/min	ISO 527-1/-2	MPa	80 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2700 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	95 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	5.5 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	5.5 / -
Rockwell hardness		ISO 2039/2	ScaleR	120 / -

\*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Melting temperature, 10°C/min		ISO 11357-1	°C	221
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	180
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	70
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	205

	Condition	Standard	Unit	Value
<b>Burning behaviour</b>				
Flammability, 0.75 mm	0.75 mm	UL 94		HB
Glow-wire flammability index, GWFI	1-3 mm	IEC 60695-2-12	°C	850 - 960
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

Condition	Standard	Unit	Value
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### Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	1.0E13
Comparative tracking index	Solution A	IEC 60112	V	600.0
CTI performance level category		Sol A		PLC 0

### Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Recommended melt temperature	230 - 260 °C
Recommended mould temperature	80 - 100 °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 reinforced polyamides, Domo recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 /1.2379 (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.