

TECHNICAL DATA SHEET

TECHNYL SAFE C 226FFC NC
DOMAMID 6N2FC NC



TECHNYL SAFE C 226FFC NC is a polyamide 6, unfilled ,improved flowability, food contact approved for injection moulding. Designed for very fast cycling injection moulding to be used in food contact in industrial consumer good as well as appliance applications.

General

Polymer type	PA6	
Certifications	RoHS EC 1907/2006 (REACH)	UL listed product
Feature	food contact approved nucleated not heat stabilized	improved flowability fast molding cycle
Applications	small appliance consumer applications building / construction	blow molding applications industrial applications
Colors available	natural	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6
ISO 16396 designation	PA6,M,S14-040

Condition	Standard	Unit	Value
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Physical properties

Condition	Standard	Unit	Value	
Density	ISO 1183	g/cm ³	1.13	
Humidity absorption	T=23°C, 50% RH	ISO 62	%	3.0
Water absorption	24 hr, 23°C	ISO 62	%	1.9 - 2.0
Water absorption, saturation			%	9.1
Molding shrinkage, parallel	ISO 294-4, 2577	%	0.9 - 1.1	
Molding shrinkage, normal	ISO 294-4, 2577	%	0.9 - 1.1	
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm ³ /10 min	165.0
Viscosity number	96% H2SO4	ISO 307	cm ³ /g	145.0

Condition	Standard	Unit	Value
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Mechanical properties

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Condition	Standard	Unit	Value	
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3500 / 1900
Stress at break	50 mm/min	ISO 527-1/-2	MPa	70 / 45
Strain at break	50 mm/min	ISO 527-1/-2	%	15 / 25
Yield stress	50 mm/min	ISO 527-1/-2	MPa	85 / 50
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2800 / 1500
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	100 / 50
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	NB
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	4.5 / 6.5

***: conditioned according to ISO 1110**

Condition	Standard	Unit	Value
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Thermal properties

Condition	Standard	Unit	Value
Melting temperature, 10°C/min	ISO 11357-1	°C	221
Temp. of deflection under load, 0.45 MPa	ISO 75	°C	170
Temp. of deflection under load, 1.80 MPa	ISO 75	°C	70
Vicat softening temperature	ISO 306	°C	200

Condition	Standard	Unit	Value
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Burning behaviour

UL Yellow Card availability 1	Click here to have access to the UL Yellow Card availability 1 -> E329653-100985460			
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	1-3 mm	IEC 60695-2-12	°C	850
Glow-wire ignition temperature, GWIT	1-3 mm	IEC 60695-2-13	°C	900
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	1.0E16
Surface resistivity		IEC 62631-3-1	ohm	1.0E15

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)			
Recommended melt temperature	240 - 280 °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.