TECHNYL® SAFE
Food and water contact

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TECHNICAL DATA SHEET

TECHNYL SAFE C 226FC NC

(Previously DOMAMID 6N1FC NC)

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

General

Feature	Food contact approved Fast molding cycle	Improved flowability
Polymer type	PA6 (Polyamide 6)	
Processing technology	Injection molding	
Certification	Food contact EU	RoHS
Applications	Small appliance Industrial Applications large appliance	Consumer good application building / construction
Colors available	Natural	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA6
ISO 16396 designation	PA6,M1,S14-040

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.13
Humidity absorption	T=23°C, 50% RH	ISO 62	%	3.3 - 3.4
Water absorption	24 hr, 23°C	ISO 62	%	1.9 - 2
Water absorption, saturation			%	9.1
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.95 - 1.15
Molding shrinkage, normal		ISO 294-4, 2577	%	0.85 - 1.05
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm³/10 min	165
Melt volume-flow rate, MVR, 2.16 kg	275°C, 2,16 kg	ISO 1133	cm³/10 min	75
Viscosity number	96% H2SO4	ISO 307	cm³/g	145

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	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3600 / 1400
Stress at break	50 mm/min	ISO 527-1/-2	MPa	90 / 60
Strain at break	50 mm/min	ISO 527-1/-2	%	5 / 150
Yield stress	50 mm/min	ISO 527-1/-2	MPa	90 / 50
Yield strain	50 mm/min	ISO 527-1/-2	%	5 / 20
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2800 / 1000
Charpy impact strength, +23°C	+23°C	ISO 179/1eU		NB / NB
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	5 / 20
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m²	3 / 3
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	221
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	156
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	66
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	199
Electrical properties				
Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+014
Burning behaviour				
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

Test run at 23°C if not differently specified, DAM state (dry as moulded).
**: conditioned according to ISO 1110*

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

These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part.

Disclaimer

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