TECHNYL® SAFE
Food and water contact

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TECHNICAL DATA SHEET

TECHNYL SAFE A 302FC NC

TECHNYL A 302 NATURAL FA

TECHNYL SAFE A 302FC NC is a polyamide PA66, unfilled, medium viscosity, food contact approved for extrusion and injection moulding. Designed to offer high impact resistance, good rigidity and excellent compression resistance of extruded and moulded parts requiring food contact compliance in industrial consumer good as well as appliances applications.

General

Polymer type	PA66	
Certifications	RoHS	EC 1907/2006 (REACH)
Feature	food contact approved medium viscosity	impact modified high melt strength
Applications	consumer applications industrial applications	home & office furniture power tool / garden equipment
Colors available	natural	
Forms	pellets	
Processing technology	injection moulding	extrusion

Product identification

ISO 1043 abbreviation	PA66

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.14
Water absorption	24 hr, 23°C	ISO 62	%	1.3
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.6
Molding shrinkage, normal		ISO 294-4, 2577	%	1.7

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	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3100 / 1600
Stress at break		ISO 527-1/-2	MPa	60 / 60
Strain at break		ISO 527-1/-2	%	55 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	3000 / 1400
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	120 / 75
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	6.5 / 25
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	5.5 / 30

: conditioned according to ISO 1110

	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	205
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	75

	Condition	Standard	Unit	Value
Burning behaviour				
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100mm/min

	Condition	Standard	Unit	Value
Electrical properties				
Volume resistivity		IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	1.0E14
Comparative tracking index	Solution A	IEC 60112	V	600.0
CTI performance level category		Sol A		PLC 0
Dielectric strength	1 mm	IEC 60243-1	kV/mm	22.0

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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.