

TECHNICAL DATA SHEET

TECHNYL SAFE A 402FC NC

(Previously TECHNYL A 402 NATURAL FA)

TECHNYL SAFE A 402FC NC is a polyamide PA66, unfilled, very high viscosity, food contact approved for extrusion. Designed to offer higher impact resistance at low humidity levels, good rigidity and excellent compression resistance of extruded parts requiring also food contact compliance in industrial consumer good as well as appliance applications.

General

Feature	Food contact approved Impact resistant	High viscosity wear resistant
Polymer type	PA66 (Polyamide 66)	
Processing technology	Extrusion	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Consumer good application building / construction	Industrial Applications transportation
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	%	1.5
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.7
Molding shrinkage, normal		ISO 294-4, 2577	%	1.7

Mechanical properties

dam / cond.*

Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3100 / 1300
Stress at break		ISO 527-1/-2	MPa	50 / 30
Strain at break		ISO 527-1/-2	%	30 / 150
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2800 / 1050
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	120 / 45
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	7 / 30
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	5.5 / 20

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

Electrical properties

Volume resistivity	IEC 62631-3-1	ohm.m	1E+013
Surface resistivity	IEC 62631-3-1	ohm	1E+014
Comparative tracking index	Solution A	IEC 60112	V
CTI performance level category		Sol A	PLC 0
Dielectric strength	1 mm	IEC 60243-1	kV/mm

*: conditioned according to ISO 1110

Processing conditions

Drying temperature/time	8H at 80°C with dry air, dew point -35°C
Suggested max moisture	0.08 %
Feed zone temperature for extrusion	280 - 300 °C
Compression zone temperature for extrusion	270 - 290 °C
Front zone temperature for extrusion	270 - 290 °C
Die zone temperature for extrusion	260 - 280 °C
Recommended extrusion temperature	260 - 300 °C

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