

TECHNICAL DATA SHEET

TECHNYL SAFE C 116FC NC XB  
(Previously DOMAMID S 6LVFC NC)

General

Feature	Dry-blend Improved flowability	Food contact approved Fast molding cycle
Polymer type	PA6 (Polyamide 6)	
Processing technology	Injection molding	
Certification	Food contact EU RoHS	Food contact FDA
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,S12-030

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.14
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.8 - 1
Molding shrinkage, normal		ISO 294-4, 2577	%	0.9 - 1.1
Viscosity number	96% H2SO4	ISO 307	cm³/g	125

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	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3000 / -
Strain at break	50 mm/min	ISO 527-1/-2	%	50 / -
Yield stress	50 mm/min	ISO 527-1/-2	MPa	80 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2600 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	95 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	NB / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	4.5 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	NB / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	4 / -
Rockwell hardness		ISO 2039/2	ScaleR	120 / -

**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	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

**Electrical properties**

Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+013

**Burning behaviour**

Flammability, 0.75 mm	0.75 mm	UL 94		V2
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), valid for natural colored products.  
\*: 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	230 - 250 °C
Recommended mould temperature	60 - 90 °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.

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