

TECHNICAL DATA SHEET

TECHNYL SAFE C 216FCPW NC
DOMAMID PW 6FC NC



TECHNYL SAFE C 216FCPW NC is a polyamide 6, unfilled, in powder form , food contact approved for rotational moulding .Designed to be used in moulded parts requiring food contact compliance in industrial consumer good as well as appliance applications.

General

Certifications	Food contact EU RoHS	Food contact FDA EC 1907/2006 (REACH)
Polymer type	PA6	
Feature	food contact approved	powder
Applications	small appliance industrial applications building / construction	consumer applications large appliance
Colors available	natural	
Forms	powder	
Processing technology	rotational moulding	

Product identification

ISO 1043 abbreviation	PA6
ISO 16396 designation	PA6,GD,S14-030

Condition	Standard	Unit	Value
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Physical properties

Condition	Standard	Unit	Value	
Density	ISO 1183	g/cm ³	1.14	
Humidity absorption	T=23°C, 50% RH	ISO 62	%	3.3 - 3.4
Water absorption	24 hr, 23°C	ISO 62	%	1.9 - 2.0
Water absorption, saturation			%	9.1
Top cut particle size (D90)	ASTM D1921	µm		1000.0
Top cut particle size (D50)	ASTM D1921	µm		500.0
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

dam / cond.*

Condition	Standard	Unit	Value	
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	2600 / 1000
Strain at break	50 mm/min	ISO 527-1/-2	%	25 / 35
Yield stress	50 mm/min	ISO 527-1/-2	MPa	75 / -
Yield strain		ISO 527-1/-2	%	4 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2200 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	100 / -
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	80 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	5 / -
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	4.5 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	5 / -
Rockwell hardness		ISO 2039/2	ScaleR	120 / -

*: **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	180
Temp. of deflection under load, 1.80 MPa	ISO 75	°C	70
Vicat softening temperature	ISO 306	°C	205

Condition	Standard	Unit	Value
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Burning behaviour

Condition	Standard	Unit	Value
Flammability, 0.75 mm	UL 94		V2
Glow-wire flammability index, GWFI	IEC 60695-2-12	°C	850 - 960
Burning rate, FMVSS, Thickness 1 mm	FMVSS 302		< 100 mm/min

Condition	Standard	Unit	Value
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Electrical properties

Condition	Standard	Unit	Value
Volume resistivity	IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity	IEC 62631-3-1	ohm	1.0E13
Comparative tracking index	IEC 60112	V	600.0
CTI performance level category	Sol A		PLC 0

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Recommended melt temperature	270 - 290 °C
Recommended mould temperature	80 - 100 °C

Stress-strain, dry
Temperature (°C)

