

TECHNICAL DATA SHEET

**TECHNYL SAFE C 216FCPW NC**  
(Previously 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**

Feature	Food contact approved	Powder
Polymer type	PA6 (Polyamide 6)	
Processing technology	Rotational molding	
Certification	Food contact EU RoHS	Food contact FDA EC 1907/2006 (REACH)
Applications	Small appliance Industrial Applications building / construction	Consumer good application Piping large appliance
Colors available	Natural	
Forms	Powder	

**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 <sup>3</sup>	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
Water absorption, saturation			%	9.1
Top cut particle size (D90)		ASTM D1921	µm	1000
Top cut particle size (D50)		ASTM D1921	µm	500
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm <sup>3</sup> /10 min	165
Viscosity number	96% H2SO4	ISO 307	cm <sup>3</sup> /g	145

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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	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 <sup>2</sup>	100 / -
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m <sup>2</sup>	80 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	5 / -
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	4.5 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	5 / -
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
Comparative tracking index	Solution A	IEC 60112	V	600
CTI performance level category		Sol A		PLC 0

**Burning behaviour**

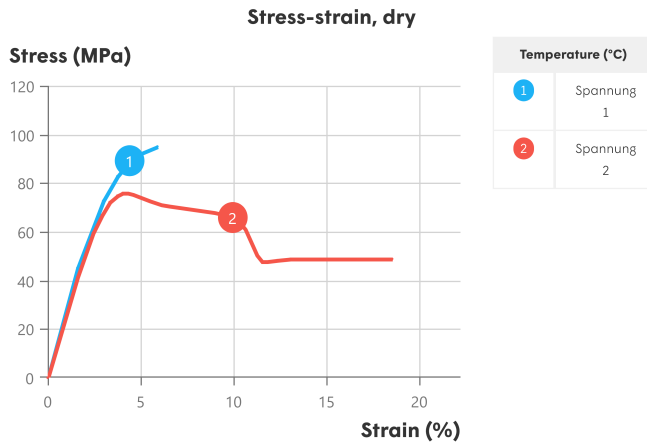
Flammability, 0.75 mm	0.75 mm	UL 94		V2
Glow-wire flammability index, GWFI	1-3 mm	IEC 60695-2-12	°C	850 - 960
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

*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	270 - 290 °C
Recommended mould temperature	80 - 100 °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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