

EXPERIMENTAL DATASHEET

TECHNYL SAFE C 216WFC V30 BK

TECHNYL SAFE C 216WFC V30 BK is a polyamide 6, 30% glass fibre reinforced, food contact and drinking water approved, for injection moulding. Designed to be used in moulded part requiring good stiffness and hydrolysis resistance in consumer & industrial goods as well as appliances in contact with drinking water. WRAS approval at 85°C.

General

Polymer type	PA6	
Certifications	Food contact EU RoHS WRAS	Food contact FDA EC 1907/2006 (REACH)
Feature	food contact approved	drinking water contact approved(obs)
Applications	small appliance industrial applications	consumer applications large appliance
Colors available	black	natural
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6-GF30
ISO 16396 designation	PA6,GF30,M1,S14-090

Condition	Standard	Unit	Value
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Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.36
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.1
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.25 - 0.45
Molding shrinkage, normal		ISO 294-4, 2577	%	0.85 - 1.05
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm ³ /10 min	40.0

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	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	9500 / 5300
Stress at break		ISO 527-1/-2	MPa	170 / 110
Strain at break		ISO 527-1/-2	%	4 / 9
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	7200 / 4500
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	270 / 150
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	95 / 110
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	75 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	14 / 25
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	11 / -

*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
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	220
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	205
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	214

	Condition	Standard	Unit	Value
Burning behaviour				
Flammability, 0.75 mm	0.75 mm	UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

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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	500.0
CTI performance level category		Sol A		PLC 1

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Recommended melt temperature	250 - 290 °C
Recommended mould temperature	80 - 100 °C