TECHNYL®

DOMO caring is our formula

TECHNICAL DATA SHEET

TECHNYL SAFE A 219WFC V30 BK

TECHNYL A 218W V30 BLACK FA

TECHNYL SAFE A 219WFC V30 BK is a polyamide 66, 30% glass fibre reinforced, heat stabilized with organic stabiliser for injection moulding. Designed to offer an improved hydrolisis resistance and chlorine resistance vs standard PA66, for cold, warm and hot temperature in domestic and industrial water management components including, but not limited to components in contact with drinking water where elevated levels of chlorine could be present.

General

Certifications	RoHS ACS EC 1907/2006 (REACH) NSF/ANSI Standard 61	UL listed product W270 KTW-BWGL WRAS
Polymer type	PA66	
Feature	food contact approved UL HB(obs) good stiffness chlorine resistant	hydrolysis stabilized drinking water certified organic heat stabilized
Applications	small appliance large appliance water filter / purifier	pump / compressor / ventilator HVAC - heating system
Colors available	black	natural
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA66-GF30
ISO 16396 designation	PA66,GF300,M1,S14-100

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	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm³	1.36
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.2 - 2.4
Water absorption	24 hr, 23°C	ISO 62	%	0.8
Water absorption, saturation			%	5.3
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3 - 0.4
Molding shrinkage, normal		ISO 294-4, 2577	%	0.9 - 1.1

	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10000 / 7500
Stress at break		ISO 527-1/-2	MPa	185 / 130
Strain at break		ISO 527-1/-2	%	3 / 7
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9000 / 6400
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	275 / 180
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	75 / 85
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	11 / 15
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	10 / 13

: conditioned according to ISO 1110

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	261
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	260
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	255

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Burning behaviour

	Condition	Standard	Unit	Value
UL Yellow Card availability 1	**Click here to have access to the UL Yellow Card availability 1 -> QMFZ2.E44716**			
Flammability, 0.75 mm	0.75 mm	UL 94		HB
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Glow-wire flammability index, GWFI, 1.5 mm	1.5 mm	IEC 60695-2-12	°C	650

Electrical properties

	Condition	Standard	Unit	Value
Volume resistivity		IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	1.0E15
Comparative tracking index	Solution A	IEC 60112	V	400.0
CTI performance level category		Sol A		PLC 1
Dielectric strength	1 mm	IEC 60243-1	kV/mm	35.0

Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.15 %
Rear temperature	270 - 280 °C
Middle temperature	275 - 285 °C
Front temperature	280 - 290 °C
Recommended melt temperature	270 - 290 °C
Recommended mould temperature	70 - 100 °C

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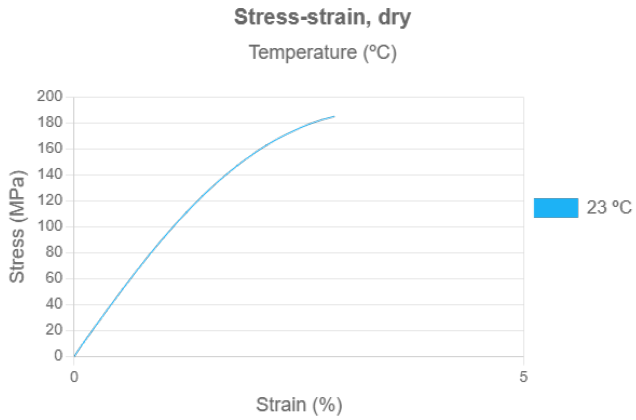

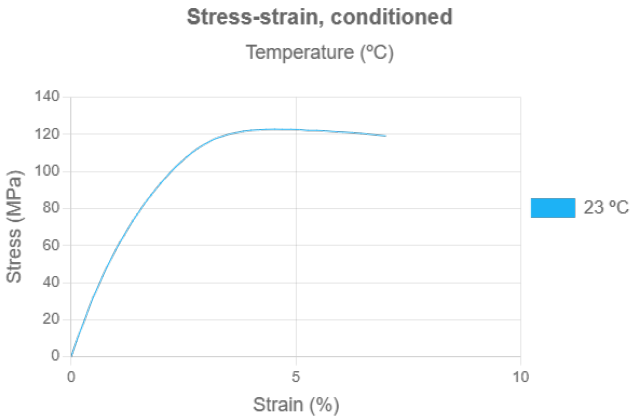

Injection notes

The material is supplied in airtight bags, ready for use.,In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point minimum -20°C.,Recommended time 2-4h.

Injection advice

For reinforced polyamides, Domo recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 /1.2379 (DIN Norm). In the case of high requirements on surface quality a mould temperature of up to 120°C can be considered.,The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design.