TECHNYL® SAFE
Food and water contact

DOMO
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TECHNICAL DATA SHEET

TECHNYL SAFE D 219WFC V30 BK

TECHNYL eXten D 219WFC V30 BLACK

TECHNYL SAFE D 219WFC V30 BK is a polyamide 6.10, 30% glass fibre reinforced, heat stabilized with organic stabilizers, for injection moulding. Designed to offer lower water uptake, higher dimensional stability and enhanced chlorine resistance versus PA 6.6 for cold and warm 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	Food contact EU RoHS W270 EU No 10/2011 NSF/ANSI Standard 61	Food contact FDA ACS EC 1907/2006 (REACH) KTW-BWGL WRAS
Polymer type	PA610	
Feature	food contact approved contains renewable content excellent hydrolysis resistant high dimensional stability chlorine resistant	chemical resistant drinking water certified high chemical resistance organic heat stabilized
Applications	small appliance large appliance HVAC - heating system	pump / compressor / ventilator water meter
Colors available	black orange	natural grey
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA610-GF30
ISO 16396 designation	PA610,GF30,MH,S14-090

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Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.31
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.1
Water absorption	24 hr, 23°C	ISO 62	%	0.36
Water absorption, saturation			%	2.4
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.35
Molding shrinkage, normal		ISO 294-4, 2577	%	0.75

Mechanical properties

	Condition	Standard	Unit	Value dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	9200 / 6700
Stress at break		ISO 527-1/-2	MPa	150 / 107
Strain at break		ISO 527-1/-2	%	4.1 / 8
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	7700 / -
Flexural modulus, ASTM D790	2 mm/min	ASTM D790	MPa	7200 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	250 / -
Flexural strength, ASTM D790	2 mm/min	ASTM D790	MPa	235 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	100 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	11 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	12 / -

: conditioned according to ISO 1110

Thermal properties

	Condition	Standard	Unit	Value
Melting temperature, 10°C/min		ISO 11357-1	°C	225
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	203

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Burning behaviour

	Condition	Standard	Unit	Value
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Flammability, 3.0 mm	3.0 mm	UL 94		HB
Glow-wire flammability index, GWFI, 1.5 mm	1.5 mm	IEC 60695-2-12	°C	700
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

Electrical properties

	Condition	Standard	Unit	Value
Volume resistivity		IEC 62631-3-1	ohm.m	3.9E13
Surface resistivity		IEC 62631-3-1	ohm	3.0E15
Comparative tracking index	Solution A	IEC 60112	V	600.0
CTI performance level category		Sol A		PLC 0
Dielectric strength	1 mm	IEC 60243-1	kV/mm	27.0

Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	240 - 250 °C
Middle temperature	245 - 255 °C
Front temperature	250 - 260 °C
Recommended melt temperature	240 - 260 °C
Recommended mould temperature	60 - 90 °C

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

Injection advice

considered.,The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design.