

# TECHNYL SAFE A 219FC V30 BK



TECHNYL SAFE A 219FC V30 BK is a polyamide 66, reinforced with 30% glass fiber, heat stabilized with organic stabilizer and food contact approved for injection moulding. Designed to be used in moulded parts requiring an excellent combination of thermal and mechanical properties, good hydrolysis resistance and food contact compliance in industrial, consumer good as well as appliance applications.

## General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA66	
Feature	food contact approved organic heat stabilized	hydrolysis stabilized
Applications	consumer applications white goods / small appliances	industrial applications
Colors available	black	natural
Forms	pellets	
Processing technology	injection moulding	

## Product identification

ISO 1043 abbreviation	PA66-GF30
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	Condition	Standard	Unit	Value
<b>Physical properties</b>				
Density		ISO 1183	g/cm <sup>3</sup>	1.36
Humidity absorption	T=23°C, 50% RH (equivalent ISO 1110)	ISO 62	%	2.2 - 2.4
Water absorption	24 hr, 23°C, immersion in water, thickness 2mm	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
<b>Mechanical properties</b>				<b>dam / cond.*</b>
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/m <sup>2</sup>	75 / 85
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	11 / 15
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m <sup>2</sup>	70 / 80
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	10 / 13

\*: **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	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

Condition	Standard	Unit	Value
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### Burning behaviour

UL Yellow Card availability 1	<b><a href="#">Click here to have access to the UL Yellow Card availability 1 -&gt; E44716</a></b>			
Flammability, 0.75 mm	0.75 mm	UL 94		HB
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Flammability, 3.0 mm	3.0 mm	UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100mm/min

Condition	Standard	Unit	Value
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### Electrical properties

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		IEC 60243-1	kV/mm	35.0

### Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)			
Suggested max moisture	0.2 %			
Rear temperature	270 - 280 °C			
Middle temperature	275 - 285 °C			
Front temperature	280 - 290 °C			

### Processing conditions

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.

### Disclaimer

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