

TECHNICAL DATA SHEET

**TECHNYL SAFE A 216FC V25 BK**  
**DOMAMID 66G25FC BK**



TECHNYL SAFE A 216FC V25 BK is a polyamide 66, 25% glass fiber reinforced, food contact approved for injection moulding. Designed to be used in moulded parts requiring food contact compliance in industrial consumer good as well as appliance applications.

**General**

Certifications	Food contact EU RoHS	Food contact FDA UL listed product
Polymer type	PA66	
Feature	food contact approved	not heat stabilized
Applications	small appliance industrial applications building / construction	consumer applications large appliance
Colors available	black	
Forms	pellets	
Processing technology	injection moulding	

**Product identification**

ISO 1043 abbreviation	PA66-GF25
ISO 16396 designation	PA66,GF25,M,S14-080

Condition	Standard	Unit	Value
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**Physical properties**

Condition	Standard	Unit	Value	
Density	ISO 1183	g/cm <sup>3</sup>	1.32	
Humidity absorption	T=23°C, 50% RH	ISO 62	%	3.1 - 3.2
Water absorption	24 hr, 23°C	ISO 62	%	1.2 - 1.3
Water absorption, saturation			%	8.3
Molding shrinkage, parallel	ISO 294-4, 2577	%	0.2 - 0.4	
Molding shrinkage, normal	ISO 294-4, 2577	%	0.8 - 1.0	
Viscosity number	96% H2SO4	ISO 307	cm <sup>3</sup> /g	145.0

Condition	Standard	Unit	Value
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**Mechanical properties**

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Condition	Standard	Unit	Value	
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	8500 / 6100
Stress at break	5 mm/min	ISO 527-1/-2	MPa	160 / 110
Strain at break	5 mm/min	ISO 527-1/-2	%	3 / 6
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	7500 / 4000
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	250 / 135
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	60 / 90
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	9.5 / 13
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m <sup>2</sup>	55 / 85
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	8.5 / 12.5

**\*: 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	262
Temp. of deflection under load, 0.45 MPa	ISO 75	°C	255
Temp. of deflection under load, 1.80 MPa	ISO 75	°C	240
Vicat softening temperature	ISO 306	°C	250

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; E170540-102223078</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
Glow-wire flammability index, GWFI	1-3 mm	IEC 60695-2-12	°C	>= 650
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/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	1.0E13
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	270 - 290 °C			
Recommended mould temperature	90 - 110 °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 considered. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design.