

TECHNICAL DATA SHEET

TECHNYL SAFE C 216FC V50 NC
(Previously DOMAMID 6G50FC 300 NC)

SAFE C 216FC V50 NC is a polyamide 6, 50% glass fiber reinforced, food contact approved for injection moulding. Designed to be used in moulded part requiring good mechanical properties and food contact compliance in industrial consumer good as well as appliance applications.

General

Feature	Food contact approved Good strength	Good stiffness
Polymer type	PA6 (Polyamide 6)	
Processing technology	Injection molding	
Certification	RoHS	
Applications	Small appliance Industrial Applications	Consumer good application large appliance
Colors available	Natural	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA6-GF50
ISO 16396 designation	PA6,GF50,M1,S14-160

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm ³	1.56
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.7
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.25 - 0.45
Molding shrinkage, normal		ISO 294-4, 2577	%	0.9 - 1.1
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm ³ /10 min	15
Viscosity number	96% H2SO4	ISO 307	cm ³ /g	145

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	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	16500 / 9300
Stress at break	5 mm/min	ISO 527-1/-2	MPa	235 / 150
Strain at break	5 mm/min	ISO 527-1/-2	%	3 / 6
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	12500 / 9100
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	95 / 105
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	100 / 105
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	20 / 30
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	16 / 17
Charpy notched impact strength		ISO 179/1eA	kJ/m ²	0 / -

Thermal properties

Melting temperature, 10°C/min		ISO 11357-1	°C	221
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Burning behaviour

Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min
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*Test run at 23°C if not differently specified, DAM state (dry as moulded).
: conditioned according to ISO 1110

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Rear temperature	250 - 270 °C
Middle temperature	260 - 280 °C
Front temperature	260 - 290 °C
Recommended melt temperature	250 - 290 °C
Recommended mould temperature	80 - 100 °C

These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part.

Disclaimer

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