

TECHNICAL DATA SHEET

TECHNYL SAFEC 216FC V40 NC  
(Previously DOMAMID 6G40FC 300 NC)

TECHNYL SAFEC 216FC V40 NC is a polyamide 6, 40% 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	UL-Yellow Card
Applications	Consumer good application home appliance	Industrial Applications
Colors available	Natural	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA6-GF40
ISO 16396 designation	PA6,GF40,M1,S14-120

Condition	Standard	Unit	Value
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Physical properties

Density		ISO 1183	g/cm <sup>3</sup>	1.45
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm <sup>3</sup> /10 min	25
Viscosity number	96% H2SO4	ISO 307	cm <sup>3</sup> /g	145

Mechanical properties

dam / cond.\*

Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	12000 / -
Stress at break	5 mm/min	ISO 527-1/-2	MPa	200 / -
Strain at break	5 mm/min	ISO 527-1/-2	%	3 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	10000 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	105 / -
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m <sup>2</sup>	80 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	18 / -
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	13 / -

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Thermal properties

Melting temperature, 10°C/min		ISO 11357-1	°C	221
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	220
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	210
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	214

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+015

Burning behaviour

UL Yellow Card availability 	Click here to have access to the UL Yellow Card → <a href="#">E329653-100458649</a>			
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		< 100 mm/min

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)
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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