

TECHNICAL DATA SHEET

TECHNYL SAFEC 216FC V40 NC
DOMAMID 6G40FC 300 NC



TECHNYL SAFE C 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

Certifications	RoHS	UL listed product
Polymer type	PA6	
Feature	food contact approved good strength	good stiffness not heat stabilized
Applications	consumer applications home appliance	industrial applications
Colors available	natural	
Forms	pellets	
Processing technology	injection moulding	

Product identification

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

Condition	Standard	Unit	Value
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Physical properties

Condition	Standard	Unit	Value	
Density	ISO 1183	g/cm ³	1.45	
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.8 - 2.0
Water absorption	24 hr, 23°C	ISO 62	%	1.3 - 1.4
Water absorption, saturation			%	5.7
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm ³ /10 min	25.0
Viscosity number	96% H2SO4	ISO 307	cm ³ /g	145.0

	Condition	Standard	Unit	Value
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 ²	105 / -
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	80 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	18 / -
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	13 / -

*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
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

	Condition	Standard	Unit	Value
Burning behaviour				
UL Yellow Card availability 1	<u>Click here to have access to the UL Yellow Card availability 1 -> E329653-100458649</u>			
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

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

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

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.