TECHNYL® SAFE
Food and water contact

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TECHNICAL DATA SHEET

TECHNYL SAFE C 216FC V30 NC

DOMAMID 6G30FC 300 NC

TECHNYL SAFE C 216FC V30 NC is a polyamide 6, 30% 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	RoHS EC 1907/2006 (REACH)	UL listed product WRAS
Polymer type	PA6	
Feature	food contact approved	not heat stabilized
Applications	small appliance industrial applications building / construction	consumer applications large appliance
Colors available	natural	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6-GF30
ISO 16396 designation	PA6,GF30,M,S14-090

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	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm³	1.36
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.4
Water absorption	24 hr, 23°C	ISO 62	%	1.4 - 1.5
Water absorption, saturation			%	6.1
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.25 - 0.45
Molding shrinkage, normal		ISO 294-4, 2577	%	0.85 - 1.05
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm³/10 min	40.0
Viscosity number	96% H2SO4	ISO 307	cm³/g	145.0

	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	9500 / 5300
Stress at break	5 mm/min	ISO 527-1/-2	MPa	170 / 110
Strain at break	5 mm/min	ISO 527-1/-2	%	4 / 9
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	7200 / 4500
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	270 / 150
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	95 / 110
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m²	75 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	14 / 25
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m²	11 / -

: conditioned according to ISO 1110

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Thermal properties

	Condition	Standard	Unit	Value
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	205
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	214

Burning behaviour

	Condition	Standard	Unit	Value
UL Yellow Card availability 1	**Click here to have access to the UL Yellow Card availability 1 -> QMFZ2.E44716**			
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

Electrical properties

	Condition	Standard	Unit	Value
Volume resistivity		IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	1.0E14
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	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

Injection advice

considered.,The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design.